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Science fiction as social fiction: British sci-fi and its antecedents

Science fiction jako sociální fikce: Britské sci-fi a jeho předchůdci

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Abstract

The goal of this thesis is to trace the roots of British science fiction literature and examine the evolution of the genre, noting the recurring themes, tropes and overall legacy of the canonical works of British sci-fi in contemporary literature. It also contains an analysis of the specifically British nature, pessimistic and featuring passive characters, especially in comparison to the natural counterpart that is American SF, which shows more optimistic tone, empowered human characters. Defining science fiction literature is complicated on its own, and it is therefore one of main issues tackled in this thesis. It is presented in the first chapter, focusing particularly on definitions proposed by Robert A. Heinlein, Darko Suvin, Brian Aldiss and Robert Scholes. These multiple, more or less conflicting definitions are argued to demonstrate the diversity of the subgenres of science fiction, thus exploring the genre's boundaries as they apply today.

The second chapter considers works arguably identified as the first exemplary novels of the genre. The authors from pre-Victorian period mentioned include Lucian of Samosa, Jonathan Swift and Francis Godwin and their theological and satirical works are analysed in science fiction context. The second part of this chapter explores the shift that came with the Victorian period, as the interest in science rose. Representative works of E. A. Abbott, Mary Shelley, Edward Bulwer-Lytton, Samuel Butler and finally, H. G. Wells, are explored in terms of their inclusion of and attitude towards science as well as what differs them from proper science fiction, not yet established as a genre at the time of their publishing.

The third chapter is dedicated to the final emergence of science fiction as a distinct and independent genre around 1926. It presents a selection of British SF writers who produced the key works of 20th century British science fiction literature both in terms of recognition they received and of the objective contribution to the genre. Therefore, it contains sections on the iconic figures of George Orwell and Aldous Huxley as well as sections on the contemporary authors Ken

MacLeod and Adam Roberts, who have not reached the same level of fame and recognition, yet their works are highly acclaimed in SF circles. The works of each of the authors are examined in context of science fiction subgenres, the general themes and topics employed as well as their overall role in the development of science fiction literature.

The fourth chapter has a broader focus – it investigates the use of science fiction as means of political speculation. Firstly, it points out the thin boundary between science fiction and political fiction and the contributing speculative element of SF. Secondly, utopian and dystopian subgenre are explored as the most apparent manifestation of political subtext in the genre, utilizing June Deery's typology. And thirdly, it observes the ways in which political speculation is employed in exemplary works of Jonathan Swift and Ken MacLeod, proving political content is not limited only to dedicated subgenres.

The fifth chapter analyses other major subgenres of British science fiction literature, including time travel, alternate history and social science fiction, while the last one is argued to be at some level present in most classic British science fiction works, independently on the main subgenre the work represents (e.g. a time travel novel with social SF content). This is revealed to be a major aspect differentiating British writing from American and subsequently presenting itself in ways that were discussed in the introduction. The final chapter then concludes the work by summarizing the findings and using exemplary works of contemporary British science fiction (published since 2000) to underline the lasting relevance of the explored works and further expected development.

Keywords: Science Fiction, Social Fiction, British, Speculative, Origins, History

Abstrakt

Cílem této práce je průzkum počátků britské sci-fi literatury a vývoje žánru a zároveň identifikovat opakující se témata, prvky a celkový odkaz kanonických děl britského science fiction v těch současných. Práce také analyzuje britský charakter děl, vyznačující se pesimismem a pasivními postavami, ve srovnání s přirozeným protějškem v podobě amerického sci-fi, které se naopak vyznačuje optimistickým tónem a silnými protagonisty. První problematikou obsaženou v této práci je samotná definice sci-fi literatury se zaměřením na definice Roberta A. Heinleina, Darko Suvina, Briana Aldisse a Roberta Scholese. Práce ukazuje, jak tyto více či méně rozporuplné definice demonstrují rozmanitost podžánrů science fiction a s jejich využitím jsou zkoumány v současné době platné hranice žánru.

Druhá kapitola se zabývá díly, které je možné identifikovat jako první příklady tohoto žánru. Jsou zmíněni autoři z období před Viktoriánskou érou jako Lucian ze Samosy, Jonathan Swift nebo Francis Goodwin a jejich teologická a satirická díla jsou analyzována v kontextu science fiction. Druhá část této kapitoly zkoumá přelom, který přišel s Viktoriánským obdobím a nárůstem zájmu o vědu. U vybraných děl E. A. Abbotta, Mary Shelley, Edwarda Bulwer-Lyttona, Samuela Butlera a konečně i H. G. Wellse je pozorován prostor věnovaný vědě a postoj vůči ní, stejně jako to, co je odlišuje od tradičního sci-fi, žánru, který v jejich době ještě samostatně neexistoval.

Třetí kapitola se věnuje vzniku science fiction jako samostatného a specifického žánru, ke kterému došlo kolem roku 1926. Představuje výběr britských autorů science fiction, kteří napsali klíčová díla britské sci-fi literatury 20. století, jak co se týče uznání, které za ně obdrželi, tak jejich objektivního přínosu žánru. Díky tomu obsahuje na jedné straně sekce věnované ikonickým postavám science fiction, Georgi Orwellovi a Aldousi Huxleymu, a na druhé straně sekce věnované současným autorům Kenu MacLeodovi a Adamu Robertsovi, kteří zatím nedosáhli stejné úrovně

slávy a uznání, ačkoliv jsou jejich díla v kruzích science fiction vysoce ceněna. Díla každého z autorů jsou zkoumána v kontextu podžánrů science fiction, obecně používaných témat a také celkové role ve vývoji sci-fi literatury.

Čtvrtá kapitola má širší zaměření – zkoumá využití literatury science fiction jako způsobu politické spekulace. Nejdříve upozorňuje na často tenkou hranici mezi science fiction a politickou literaturou fikce a na tomu přispívající spekulativní prvek science fiction. Poté jsou s využitím typologie June Deery prozkoumány dvě nejzřejmější manifestace zapojení politického podtextu do science fiction – podžánry utopie a dystopie. Nakonec je věnována pozornost ukázkám děl Jonathana Swifta a Kena MacLeoda na kterých je demonstrováno, že politický obsah se neobjevuje pouze v na to zaměřených podžánrech science fiction.

Pátá kapitola analyzuje další hlavní podžánry britské sci-fi literatury, včetně cestování časem, alternativní historie a sociálního science fiction, přičemž je demonstrováno, že poslední uvedený žánr je přítomen ve většině klasických děl britského science fiction, bez ohledu na primární podžánr, který dílo reprezentuje (např. román o cestování časem, zkoumající témata patřící k sociálnímu science fiction). To se ukazuje jako hlavní aspekt, odlišující britská sci-fi díla od amerických a projevující se způsoby, probranými v úvodu. Poslední kapitola poté zakončuje práci shrnutím závěrů a použitím příkladů současných britských sci-fi románů (publikovaných od roku 2000) ke zdůraznění trvalé relevantnosti zkoumaných děl a dalšího předpokládaného vývoje žánru.

Klíčová slova: science fiction, sociální fikce, Velká Británie, spekulativní, původ, historie

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1 Introduction

Science fiction is a literary genre whose value is often underrated by those who are not acquainted with it. Generally, the prevailing idea of the genre's characteristics among the general public includes larger-than-life characters embarking on space explorations leading to epic battles and thus reducing the rich and varied genre into one of its subgenres, the traditionally American space opera. This thesis shall attempt to undo those wrongs imposed upon this genre by the uninitiated. The traditional concept rooted within the minds of many is in fact only one segment of the large spectrum of subgenres of science fiction, which otherwise includes categories such as (post-)apocalyptic sci-fi, time travel, biopunk, or the main focus of this work – social science fiction. Furthermore, it is important to realize that the individual subgenres create a fluid spectrum where they regularly overlap, rather than being divided by incompatible, clearly differentiated labels. Accordingly, this thesis will include all major subgenres of British science fiction, noting the presence of the underlying social theme in each of them.

1.1 The Specifics of British SF

Although science fiction has become established as a major subgenre in a considerable number of countries across the world by the 1950s, British and American environment allowed it to flourish the most. Hence these two countries have become traditionally connected to the genre, dominating over other branches, such as the French, Russian, German or indeed Czech. But despite their shared language, the form differs. As John R. Cook and Peter Wright observed, the main source of the contrasting natures of British and American sci-fi is the history of each of the countries. British sci-fi literature was marked with the hardships the country had to endure and the losses it needed

to overcome during both World War I and World War II, which curb every potential for optimism, let alone enthusiasm. The average British science fiction story is therefore a rather small-scale version of the American one, bursting with daring ambition, confidence and fervour. The United States were further motivated by their leading position in The Space Race, projecting their idealistic expectations of the conquering of outer space.¹ This very distinction is the reason why British science fiction is in general classified as social sci-fi, even though the social element is sometimes rather covert, concealed by another layer (be it a motif, theme or a whole another subgenre of science fiction).

One of the major sci-fi genres, the space opera, traditionally belongs to the American domain of SF. It is defined as a “colourful, dramatic, large-scale science fiction adventure” and its optimistic tone is also stressed,² making clear the juxtaposition of British and American science fiction. Brian Aldiss’ 1974 anthology *Space Opera* also attests to the fact that such works were written mainly by American authors – Aldiss, a prolific English sci-fi author, created an anthology of classic space opera stories, where the absolute majority of the contributing authors is indeed American. Yet, space opera has become a major sub-genre with a secure place within the realm of British science fiction as of recently – during the British Boom that began around the year 2000.³ The traditional works, on the other hand, were commonly set in a post-apocalyptic world, in a far-future version of the Earth. Instead of exploring the fantastic worlds in space, British SF writers had their protagonists keep their feet on the ground and tackle serious ethical, existential and

¹ John R. Cook and Peter Wright, *British Science Fiction Television: A Hitchhiker's Guide* (London: I.B. Tauris, 2006): 4.

² David G. Hartwell and Kathryn Cramer, *The Space Opera Renaissance* (New York: Tor, 2006): 10-18.

³ Jane Smiley, *Thirteen Ways of Looking at the Novel* (London: Faber, 2006): 374.

equivalent issues. It is also fitting to use the term ‘protagonist’ or simply ‘character’ instead of ‘hero’ in this case. The brave, strong and often larger-than-life characters, embodying the heroic archetype too traditionally belong to the American science fiction brimming with action, while the more passive and rather ordinary characters reflect the more realistic approach of the atmosphere in British sci-fi circles.

1.2 Defining the Genre

One of the major things to consider is the evolution of the genre in the realm of British literature. Identifying the first prototypes of British science fiction is a delicate task and it can always be questioned by some, as even the sole definition of what science fiction means depends largely on one’s interpretations of the genre. The first definition taken into account was provided by Darko Suvin, a major science fiction critic and academic. In the influential 1979 publication of *Metamorphoses of Science Fiction* he attempted to establish sci-fi as

a literary genre or verbal construct whose necessary and sufficient conditions are the *presence and interaction of estrangement and cognition, and whose main device is an imaginative framework alternative to the author’s empirical environment.*”⁴

There is a need to incorporate a “strange newness,” a *novum*, to depart from the familiarity of the setting. Furthermore, this novum is located within the realm of possibility, fuelled by human

⁴ Darko Suvin, *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre* (New Haven: Yale University Press, 1979): 37.

curiosity. The novum also overlaps with Suvin's term *cognitive estrangement*, which he uses to summarize the philosophical concept he points out as the unique attribute of sci-fi.

Cognitive estrangement has since become an established term in literary theory, specifically in the science fiction circles. Naturally, the concept itself has been rephrased and echoed by other critics over time, as in the second definition demonstrating this approach to defining the genre, as it will also be handled in this work. It is quoted from the literary critic and theorist Robert Scholes, the author of "Structural Fabulation: An Essay on Fiction of the Future," a significant essay on science fiction in which he proposes it is "a fictional exploration of human situations made perceptible by the implications of recent science."⁵ Furthermore, according to him, sci-fi literature is "fiction that offers us a world clearly and radically discontinuous from the one we know, yet returns to confront that known world in some cognitive way,"⁶ coming back to the concept of cognitive estrangement.

However, almost thirty years prior to Suvin's definition (in 1947), Robert A. Heinlein (who also coined the term speculative fiction) has provided a similar (albeit less philosophical and more broadly focused) definition of the genre:

Let's gather up the bits and pieces and define the Simon-pure science fiction story: 1. The conditions must be, in some respect, different from here-and-now, although the difference may lie only in an invention made in the course of the story. 2. The new conditions must be an essential part of the story. 3. The problem itself—the "plot"—must be a human problem. 4. The human problem must be one which is created by, or indispensably affected by, the new conditions. 5. And lastly, no established fact shall be violated, and, furthermore, when the story requires that a theory contrary to present accepted theory be used, the new theory should be rendered reasonably plausible and it must include and explain established facts as satisfactorily as the one the author saw

⁵ Robert Scholes, "Structural Fabulation: An Essay on Fiction of the Future" (Notre Dame, IN: University of Notre Dame, 1975): 8.

⁶ Scholes 29.

fit to junk. It may be far-fetched, it may seem fantastic, but it must not be at variance with observed facts, i.e., if you are going to assume that the human race descended from Martians, then you've got to explain our apparent close relationship to terrestrial anthropoid apes as well.⁷

This definition seems to share a common ground with Suvin's concept (especially the first point of Heinlein's thesis) expanded further, with more focus on the nature of the plot and the human element in it. It also appears more prescriptive, as it covers all of the main aspects of a story and leaves little to take liberty with, regarding the general structure. The fifth point of his dissection of sci-fi literature should be especially noted, as this already slightly touches upon the later examined difference between soft and hard science fiction.

The fourth definition to be utilized in this paper is by one of the visionaries of British sci-fi literature, Brian Aldiss. In the 1986 edition of *Trillion Year Spree* he argued:

science fiction is the search for a definition of mankind and his status in the universe which will stand in our advanced but confused state of knowledge (science), and is characteristically cast in the Gothic or post-Gothic mode.⁸

This interpretation points out the connection of science fiction to the Gothic literature, crucial in the search for the antecedents of (especially British) sci-fi literature. It explains the origin and the reason for the rise of the genre. And again, the attention is drawn to the human element, in this case hinting at the underlying element of social fiction, characterizing the majority of British science fiction.

⁷ Robert A. Heinlein et al., *Of Worlds Beyond: The Science of Science Fiction Writing: A Symposium*. Ed. Lloyd Arthur Eshbach (Chicago, IL: Advent, 1964): 91.

⁸ Brian Aldiss and David Wingrove, *Trillion Year Spree: The History of Science Fiction* (New York: Atheneum, 1986): 164.

Finally, the last definition to be mentioned is by Tom Shippey who formulated it followingly: "Science fiction is hard to define because it is the literature of change and it changes while you are trying to define it."⁹ It is not a definition in its true sense, rather an observation on how complicated defining the genre is. But the important part is the explanation of this problem - the link between science fiction literature and change. It ties in with the “newness” mentioned in several other definitions but puts in a broader context. There are various degrees of all-permeating change whose impact on literature can be dramatic at times – even the emergence of science fiction under the specific label was dependent on great progress in the field of science which radically altered the lifestyle of the Western civilization. However, sci-fi literature reflects even some minor changes or even possibilities of change (operating with currently emerging theories) and hence it is divided into many subgenres, based on the focus and aim of the writing, which will be later analysed in more detail.

1.3 Tracing the Roots

Many literary critics and authors have attempted to trace science fiction to its roots. However, individual conclusions differ dramatically, owing to the problematic definition of the genre. Authors frequently identified as the “proto-science fiction” include Edgar Allan Poe on behalf of the American branch, Jules Verne among the French and for that matter, continental European authors and Mary Shelley and H. G. Wells as the representatives of British literature, whose works will be further elaborated upon later in this text.¹⁰ Nonetheless, it needs to be stressed

⁹ Maxim Jakubowski and Malcolm Edwards, *The Complete Book of Science Fiction and Fantasy Lists* (London: Granada, 1983): 258.

¹⁰ Adam Roberts, *The History of Science Fiction* (Basingstoke: Palgrave Macmillan, 2006): xv.

that we are in no way attempting to assert the works of these authors as science fiction as such – they bear significant similarities especially to early sci-fi works, demonstrating the connection and identifying those works as some of the major sources and influences on the later authors. But as science fiction did not really exist at that time, its patterns and elements are mixed with other traditional genres and the sci-fi elements must be extracted from the work individually. Thus, even the more radical opinions on identifying the early exemplary works of science fiction, represented by Samuel R. Delany, are justifiable. This literary critic claimed the following: “there’s no reason to run SF too much back before 1926, when Hugo Gernsback coined the ugly and ponderous term ‘scientifiction’ which, in the letter columns written by the readers of his magazines, became over the next year or so ‘science fiction’ and finally ‘SF.’”¹¹

The year 1926 was also the year Gernsback founded the *Amazing Stories* magazine and hence created the first medium anthologizing sci-fi literature, the so-called scientifiction. And despite the fact that the magazine was American, foreign authors were published frequently (including Wells and Verne). British sci-fi authors therefore did not fall short of getting their stories serialized and printed in magazines – there was not any major science fiction magazine era fuelling the rise of the popularity of SF like there the pulp era in the US. It is understandable that Delany has identified this point in the genre’s evolution, where it was finally starting to become a fully distinguished discourse which does not overlap with other genres. However, what invalidates his argument is the fact that he at the same time uses Gernsback’s term as the foundation of his claim,

¹¹ Samuel R. Delany, *Silent Interviews: On Language, Race, Sex, Science Fiction, and Some Comics--A Collection of Written Interviews* (Middletown: Wesleyan University Press, 1994): 26.

yet he ignores the fact that Gernsback included (and therefore saw as science fiction) names like H. G. Wells in his magazine, even though his major works were written in the 1890s.¹²

¹² Herbert G. Wells et al., *Amazing Stories*. 1.1 Ed. Hugo Gernsback. NYC: Experimenter Publishing Co, 1926. Internet Archive <<https://archive.org/details/AmazingStoriesVolume01Number01>> Web. 14 Oct. 2015.

2 Antecedents of British Science Fiction

2.1 Pre-Victorian Period

Searching for works of literature that would meet the science fiction criteria prior to the Victorian period is an uncertain task based on sheer speculations and the further back the exploration goes, the more dubious the subject gets. The reason why British science fiction flourished from the 19th century onward is the set of changes that was taking place both in scientific circles and British society. The introduction of electronics, telephones, light bulbs and the generally rapid progress of virtually all fields of science were causing changes in the atmosphere and in everyday life of the people. Such rapid changes naturally elicited both enthusiastic and sceptical, even fearful reactions and these feelings were often reflected in contemporary literature. Prior to this stage, science fiction was usually used rather as a frame narrative used as a means to communicate their social commentary, critique or other such issues. The sci-fi elements hence serve merely as a metaphor, a way of distancing both the readers and the writers from their text.

To be concrete, the earliest example of what is often argued to be science fiction (or proto science fiction at least) is the work by the Ancient Greek author Lucian of Samosa. The most well-known of his works is *True History*, which despite being written as early as sometime in the 2nd century features elements including interplanetary travel and the existence of extra-terrestrial life. But in accordance with what was already mentioned, this was not a simple work of fiction interested in science, space and what is “out there”. Instead, it is a satire aimed at contemporary travelogues, intentionally exaggerating all traditional conventions of the genre, using common science fiction tropes merely as props, hence its identification as a work of sci-fi can be easily disputed. And such is the case of many works with the formal attributes of SF written prior to the official establishment of the genre.

British literature saw analogous writings, but centuries later. In the 18th century, with the Victorian era knocking on the doors, there was a rise of popularity of the so-called “planetary novels.” This term was used by critics such as Darko Suvin and Mark Brake. Brake observes that these novels were commonly satirical, citing *Gulliver’s Travels* (1726) as representative of this sub-genre, as it on the one hand features a milestone in the history of sci-fi literature, the first spaceship (albeit in the form of a flying island), but on the other hand it is a parody aimed at Newtonianism and by extension, science.¹³ Concerning the flying island of Laputa, the fundamental reason it falls under the science fiction genre rather than fantasy is the mechanism that allows it to fly – not magic, but a magnetic field, holding the island containing a large magnet within the reach of the Earth, allowing it to float around that area. Furthermore, Gulliver’s encounter with the inhabitants of Laputia is an example of alien contact. Based on this analysis, it can be concluded that Jonathan Swift is one of the first British authors whose work began the process of slowly paving the way for full-blown science fiction literature for many years to come. That said, the novel’s lacking interest in science (mocking it instead) prevents it from qualifying as a traditional SF novel.

To explore even older and more arguable works containing elements of science fiction, *The Man in the Moone* (1638) by the Welsh bishop Francis Godwin is particularly noteworthy. Generally, the debates over the genre of the novel have not reached a consensus, but they mainly operate with the terms fantasy, adventure and science fiction. And in spite of the ambiguity in labelling the novel, its place among the antecedents of British sci-fi should not be doubted. One of the main arguments for its inclusion is the fact that it contains the first instance of alien contact

¹³ Mark Brake, *Alien Life Imagined: Communicating the Science and Culture of Astrobiology* (Cambridge: Cambridge UP, 2013): 124.

depicting in Anglophone literature, as Brake attests.¹⁴ The religious theme is substantial, yet the same can be said of Godwin's interest in Galileo's theories, reflected considerably throughout the book and subsequently validating the, at least to an extent, scientific approach. The Moon and his inhabitants also create a seeming utopia with a hint of eugenics, recurring themes in British SF, when it is revealed that the peaceful and religious Lunars get rid of their unfit offspring by sending them to Earth so they do not spoil their utopia.

Although none of these works is pure science fiction, their contribution to the development of the genre is undeniable. Regarding the impact of Godwin's novel, it was not just his fellow Brits whom he influenced – even foreign authors like Edgar Allan Poe and Jules Verne owe to his writing.¹⁵ Apart from fiction writers, Godwin's work also had a major impact on general scientific knowledge – building on the teaching of Kepler and other contemporary scientists, he ventured to speculate further on the newly open possibilities of science, using fiction writing, and thus inspired others writers to also produce works considering the plurality of worlds and similar questions (one of the main authors thus inspired was bishop John Wilkins with his scientific works *The Discovery of a World in the Moone* (1638) and *A Discourse Concerning a New Planet* (1640)).¹⁶ Hence it is possible to observe how the two subsets of sci-fi, science and fiction, overlap and affect each other. And the fact that most of these proto-science-fiction works combine the SF elements with satire serves as a precursor of the future development of the genuine and pure British science fiction in

¹⁴ Mark Brake and Neil Hook, *Different Engines: How Science Drives Fiction and Fiction Drives Science* (London: Macmillan, 2008): 15.

¹⁵ Brake and Hook 15.

¹⁶ Brake and Hook 15.

the direction of social fiction. Satire and social science fiction are, after all, only two different modes of social critique or commentary.

2.2 Victorian Period

2.2.1 *E. A. Abbott and the Fourth Dimension*

In British literature, the works of the Victorian author Edwin Abbott (and specifically his novella *Flatland* published in 1884) would be a later example analogical to the planet novels, using science fiction tropes only as means of constructing the other, key layer of the narrative. On the surface, the work is concerned with the science fiction trope of the existence of additional dimensions, examining a two-dimensional world whose inhabitant travels into a one-dimensional and later three-dimensional one, at first struggling to come to terms with the existence of another dimension but in the end contemplating the possible existence of as much as eight dimensions.¹⁷ But apart from this scientific layer, it is another example of satire in disguise – in this case aimed at the hierarchy of Victorian society, rather than at a genre as in Lucian's case. And the political message of that satire is quite revolutionary, since Abbott criticizes the position women have been forced into with religion being an important factor and hence to blame, as Darko Suvin observes. He further notes that the similarity between Abbott's tone and Swift's, pointing out the political acuteness of the former.¹⁸ Nonetheless, Abbott incorporated the elements of social satire and

¹⁷ Edwin A. Abbott, *Flatland: A Romance of Many Dimensions* (New York: Barnes & Noble, 1963)

¹⁸ Darko Suvin, "Victorian Science Fiction, 1871-85: The Rise of the Alternative History Sub-Genre (*La Science-fiction Victorienne, 1871-1885: L'émergence Du Sous-genre De L'uchronie*).\" (Science Fiction Studies 10.2, Science Fiction in the Nineteenth Century, 1983): 162. JSTOR <<http://www.jstor.org/stable/10.2307/4239546?ref=search-gateway:46fad64c378cc7f3767445de2a7dd739>> 10 Nov. 2015.

science fiction in a well-balanced manner and thus created a work whose contribution to sci-fi cannot be overstated. Thanks to Abbott's handling of the subject, his novella can serve as an accessible introduction to serious scientific literature concerned with the existence of other dimensions, such as Rudy Rucker's *The Fourth Dimension* (1984), a non-fiction work following the same premise, albeit without the social satire and with a fundamentally more advanced scientific approach, only natural, considering the two works are separated by a whole century.

2.2.2 Mary Shelley – *When Science Replaces Magic*

Mary Shelley's *Frankenstein* (1818) is one of the works of literature to which the beginning of science fiction is commonly traced back. And it was Brian Aldiss who established it as such and helped the novel gain attention in a completely new context, thanks to both his fiction writing (*Frankenstein Unbound*, 1973) and to his documenting of the history of science fiction.¹⁹ Even though the opponents of his argument often dismiss *Frankenstein* as another Gothic tale, there is a unique aspect to the story which makes it different and innovative.²⁰ And that is the attitude of Victor Frankenstein towards science – unlike the traditional Gothic tales which tend to rely on the occult and the magical, Shelley's protagonist celebrates modern science of that time ("I will pioneer a new way, explore unknown powers, and unfold to the world the deepest mysteries of creation"²¹). Shelley also mentions the process of galvanization in the preface of a later edition of *Frankenstein*

¹⁹ Brian W. Aldiss and David Wingrove, *Trillion Year Spree: The History of Science Fiction* (New York: Atheneum, 1986): 20.

²⁰ David Seed, ed., *Anticipations: Essays On Early Science Fiction and Its Precursors (Utopianism and Communitarianism)* (Syracuse: Syracuse University Press, 1995): 48.

²¹ Mary Wollstonecraft Shelley, *Frankenstein, Or, The Modern Prometheus* (Ware: Wordsworth Classics, 1993): 38.

and Mark Brake argued that even the university where Victor Frankenstein studied, the Ingolstadt University, was a carefully planned out choice, as it was the centre of science at that time and thus very symbolic of Frankenstein's enthusiasm for science.²² With the help of her husband Percy Shelley who wrote the preface to her novel, Mary accentuated this ground-breaking perspective of the tale, this departure from the traditional Gothic mode, stating in the preface: "I have not considered myself as merely weaving a series of supernatural terrors. The event on which the interest of the story depends is exempt from the disadvantages of a mere tale of spectres or enchantment."²³

However, the final message *Frankenstein* sends across is rather ambivalent. It combines both technophilic and technophobic features, albeit less overwhelmingly apparent than in most traditional science fiction. But its bitter ending, warning Shelley's contemporaries of the power of science and the dangers of uncontrolled scientific ambition, still fails to disqualify the novel from being classified as sci-fi, as a considerable portion of the genre's classics ends on a similar note and is in fact technophobic. The basic plot revolves around the experimental creation of a new life form, which could in fact be seen as the antecedent of the biopunk subgenre, concerned with genetic engineering and enhancements. J. P. Telotte described it as an attempt of science to alter human nature through altering the human body.²⁴ The traces of the social undertones of British science fiction are also to be already found here, precisely because of its overall concern with the danger the rise of modern science poses on society and hence on the human race. Brian Aldiss argued that

²² Brake and Hook 39.

²³ Shelley 7.

²⁴ J. P. Telotte, *Replications: A Robotic History of the Science Fiction Film* (Urbana: University of Illinois, 1995): 17.

Frankenstein also puts mankind's capabilities in a whole new light and on a whole new spectrum, assigning it another primacy that would become a crucial part of the sci-fi genre.

One of the strongest arguments against the classification of *Frankenstein* as science fiction is the fact that it dates way back before the genre really existed. Mark Rose formulated this claim as follows: "we are retroactively recomposing that text under the influence of a generic idea that did not come into being until well after it was written."²⁵ However, it depends on one's perspective whether this makes a novel ineligible for the later-emerged label. It is true that when *Frankenstein*, argued to be the first ever work of science fiction, was written, the genre would not yet be fully formed and defined. Further, it is important to take into account that the novel is not argued to be pure science fiction – the aspects of the gothic novel are equally present, which also invalidates Rose's attempt at denial of the SF aspect of *Frankenstein*. Shelley's text undoubtedly played a major role in the emergence of science fiction and therefore SF writings were composed under the (albeit often indirect) influence of the novel and not the other way around, as Rose and others tried to argue.

2.2.3 Edward Bulwer-Lytton – *The Occult Meets Science*

The novel *The Coming Race* is what earned Bulwer-Lytton his place among the early sci-fi writers. Written in 1871, the novel depicts man's contact with a race of angelic creatures called Vril-ya, superior to men and dwelling in a subterranean world. Bulwer-Lytton seemed to have also been affected by the contemporary zeal for exploring the possibilities opening for the society with

²⁵ Mark Rose, *Alien Encounters: Anatomy of Science Fiction* (New York: ToExcel, 1999): 5.

the gradually improving understanding of electricity and the principles of working with the electric current. This zeal is demonstrated by the basic premise of the novel – the Vril-ya are named after Vril, a power source providing energy for virtually everything mobile in their world. Its form differs from that of an electricity source, as the Vril is described as an “all-permeating fluid,” but the analogy between the principles these mechanisms work with is apparent, although Bulwer-Lytton’s idea offers a wider range of possibilities. But this might again be a demonstration of the enthusiasm of that era, that allowed the writer to fantasize beyond the realistic scenario. The Vril-ya make use of mechanical automatons (also animated by the Vril) who “actually seem gifted with reason”²⁶ and are indistinguishable from human beings.

Even though it is called an occult romance by Edward James and Farah Mendlesohn, *The Coming Race* features a number of science fiction elements which the authors recognize.²⁷ Mainly it is the idea of a central power source causing motion of both the animate and inanimate. Fictional energy sources frequently appear in sci-fi literature. Some lean towards fantasy, relying on a purely unrealistic power source without providing any supporting arguments that would at least make the reader believe in the feasibility of such an invention, while others speculate with some level of support of scientific evidence. Bulwer-Lytton is one of those who speculated within the realm of scientific plausibility, even though it might not have appeared that way at the time it was published. But later critics valued the idea that was not only able to create a suspension of disbelief (groups of people believed Vril was real and dedicated their life to searching for it), and for example Geoffrey Wagner argued that Bulwer-Lytton’s invention of the fictional Vril had anticipated

²⁶ Edward Bulwer-Lytton, and David Seed, *The Coming Race* (Middletown CT: Wesleyan UP, 2005): 141.

²⁷ Edward James and Farah Mendlesohn, *The Cambridge Companion to Science Fiction* (Cambridge: Cambridge UP, 2003): 22.

atomic power.²⁸ The automatons are another sci-fi element, as their appearance, very human-like, makes them the proto-robots or rather proto-androids. And even the setting, a subterranean world, is a common science fiction topos. Specifically, it is connected to the hollow Earth theory, first proposed by Edmond Halley in 1692.²⁹ Bulwer-Lytton also touches upon social issues such as the “acute and all-pervasive bourgeois dilemma of collective vs. individual” as Darko Suvin calls it.³⁰

2.2.4 Samuel Butler and Satirical Utopia

Samuel Butler, English novelist, critic and translator belongs to this list because of his utopian novel *Erewhon* (1872). It is often compared to *The Coming Race*, particularly due to its utopian themes and to the fact that Butler’s novel was published anonymously, shortly after Bulwer-Lytton’s one, and thus the authorship was generally attributed to Bulwer-Lytton. Butler himself recognized and acknowledged this similarity.³¹ In *Erewhon*, the protagonist discovers a fictional country of Erewhon with a seemingly utopian society. As in the many cases previously discussed, it is primarily a satire. In this case, aimed at Victorian society. But apart from that, Butler relied on science and his honest interest as well as his erudition are clearly demonstrated in the novel. The most apparent influence on the science fiction part of his novel is Charles Darwin and his learning

²⁸ Geoffrey Wagner, "A Forgotten Satire: Bulwer-Lytton's *The Coming Race*." *Nineteenth-Century Fiction* 19.4 (1965): 381. JSTOR. Web. 4 January. 2016. <<http://www.jstor.org/stable/10.2307/2932877?ref=search-gateway:d1f8cb187bf100af440d0648afed1ac0>>.

²⁹ David Standish, *Hollow Earth: The Long and Curious History of Imagining Strange Lands, Fantastical Creatures, Advanced Civilizations, and Marvelous Machines below the Earth's Surface* (Cambridge, MA: Da Capo Press, 2007): 19.

³⁰ Suvin 153.

³¹ Aldiss 115.

– based on the concept of natural selection, Butler presents the first version of artificial intelligence in fiction. The inhabitants of Erewhon fear machinery, because machines are believed to have developed consciousness.

An excerpt from the novel illustrates Butler’s reasoning regarding the scientific plausibility and the sole process behind the machines’ acquisition of consciousness: “Reflect upon the extraordinary advance which machines have made in the last few hundred years, and note how slowly the animal and vegetable kingdoms are advancing.”³² The belief that machines could develop an independent mind of their own was radical and visionary at that time – even in the 21st century, it is only a subject of speculation, albeit more and more realistic. The one problem causing a division between the actual development of technology and Butler’s vision is the trigger of the process. He draws a parallel between the reproductive system of animals (insects such as butterflies and ants) and the way machines reproduce (machines creating machines of other types), portraying the machines’ intelligence as well as eventual self-replication as a result of natural selection. However, although artificial consciousness and self-replication of machines have since become a common science fiction trope, they are almost invariably depicted as a result of man’s intervention, not an independent process excluding man.

Butler is the last in the line of early sci-fi authors whose works were still classified primarily as social satire, following names like Bulwer-Lytton and Swift. The genre was already becoming more distinct (even though it was still a long way before the genre had been officially labelled) and despite the social critique or general commentary under the guise of satire have still been present in many of the works, the satire has shifted to a secondary role. The main focus was shifting to the

³² Samuel Butler, *Erewhon* (Harmondsworth: Penguin, 1970): 308.

scientific visions, becoming more elaborate and creative, since they no longer felt like a mere setting or props used metaphorically by the author but like a complex and well-developed core of SF writing.

2.2.5 H. G. Wells, the First True British Science Fiction Writer

H. G. Wells signifies this break in the development of British science fiction, as he is generally perceived as a science fiction writer with almost no objection, with little in his writing leaving space for ambiguity. Patrick Parrinder rightfully identified him as “the pivotal figure in the evolution of scientific romance into modern science fiction.”³³ Wells introduced many of the tropes considered inseparable from the science fiction genre, such as time travel (*The Time Machine*, 1895), alien invasion (*The War of the Worlds*, 1898), interplanetary travel and space exploration (*The First Men in the Moon*, 1901), genetic mutations and experiments on humans later evolving into the biopunk subgenre (*The Island of Doctor Moreau*, 1896), or future history (*The Shape of the Things to Come*, 1933).

Wells’ upbringing and education played a major role in the shaping of his later writings. His scientific training, under the tutelage of Thomas Huxley, determined the tone of his writing.³⁴ Apart from his science fiction career, Wells is famous for his socialist activism, reflected in many of his novels. The most famous one, *The Time Machine*, was at the time of its publishing interpreted as “a mediation on the class structure of *fin-de-siècle* Britain” as well as a more scientific work,

³³ Patrick Parrinder, *Science Fiction: its Criticism and Teaching* (London and New York: Methuen, 1980): 10.

³⁴ Roberts 143.

reflecting the Darwinian theory of evolution Wells studied.³⁵ This combination of the social and the scientific demonstrates the close connection between the two aspects of literature to become a major attribute of British science fiction in the years following Wells' death and his writing proves that the social element and context has been present in the genre since its early beginnings. And as Adam Roberts pointed out, the time machine in the eponymous novella is nothing less than the *novum* Darko Suvin identified as the key to the sci-fi genre.³⁶

H. G. Wells is also connected to E. A. Abbott by pondering the same scientific question – the possible existence of four dimensions. But in Wells' case, in *The Time Machine*, the fourth dimension is specifically identified as time (with the first three dimensions traditionally representing different 'layers' of space). Another of his stories, *The Island of Doctor Moreau* could then be read as a mirroring of Shelley's *Frankenstein* and possibly a further development of Victor's character, as both the novels feature mad scientists experimenting with boundaries of the life, death and human/monstrous form. Apart from that, *The War of the Worlds* (or "the paranoid 'future invasion of Britain' story" as Roberts calls it) is also still recognized widely, even though invasion stories were often published during that era. Wells' talent and attention to detail with which he described Martians (taking into account contemporary scientific discoveries) is what made it stand out and become a classic of the genre.³⁷

³⁵ Roberts 144.

³⁶ Roberts 145.

³⁷ Roberts 206.

3 Modern Sci-Fi Authors

3.1 Olaf Stapledon and the Cosmic Myth

Olaf Stapledon's most important contribution to the British science fiction pool is his future history novel *Last and First Men* (1930). Brian Aldiss praised Stapledon's invention, using the example of his depiction of the Martians. He admits the idea originates in Wells' work, yet Stapledon's vision is so different and unique that it also deserves credit.³⁸ The concept of the novel is almost encyclopaedic, revisiting eighteen versions of human race in varying states of evolution (including adjustments in the size of their brain, head and of the whole body as well as variations of its shape and other abilities, including flying). It features aspects of genetic enhancements and engineering, which is of great importance to some subgenres of science fiction interested in natural vs. artificial evolution (and biopunk in its most modern form). At the same time, there is an element linking it back to the proto-science fiction stories – the traveller's descriptions of the societies he encounters with an occasional hint of satire resemble the writing of Swift, Abbott and others.

Stapledon's other key work *Star Maker* (1937) is similar to the first novel, but even more generous in scope – an unnamed traveller and his fellow adventurers explore life across the whole universe (Aldiss observes: "they explore endless worlds, endless modes of life"³⁹). Genetic engineering is revisited, as well as philosophical themes the protagonist explores as the world faces a crisis. Religion is incorporated into Stapledon's vision of the future, but unlike traditional religions, this one admits how inherently imperfect it (as well as its God) is. The eponymous Star Maker is not omnipotent; who created him and the laws he abides remains up to speculation, as

³⁸ Aldiss 241.

³⁹ Aldiss 244.

Stanislaw Lem points out.⁴⁰ Stapledon also shows men's misery and lack of relevance at the moment, but with some room for improvements:

We dared to think that in some far distant epoch the human spirit, clad in all wisdom, power, and delight, might look back upon our primitive age with a certain respect; no doubt with pity also and amusement, but none the less with admiration for the spirit in us, still only half awake, and struggling against great disabilities.⁴¹

In combination with this message, the various ways of the civilizations' ends can be seen as half prophecy, half warning for the human race.

Overall, Stapledon's position within the science fiction genre is crucial, as he was one of the first visionaries to lay the foundation stones.⁴² However, personally he has put emphasis on the myth-making in his writing, rather than on science, as Oliver Markley observes.⁴³ He further stresses the role of Stapledon's writing in fuelling others' imaginations (including many other key sci-fi authors), particularly by the constructed myths. Both *Last and First Men* and *Star Maker* are without a doubt epic myths, unprecedented in their scope and detail. Stapledon's favouring of the "myth" over the "science" label implies he was not aiming for scientific accuracy, yet he managed to do so quite authentically in some cases (including mainframe computers, artificial intelligence and genetic engineering).⁴⁴

⁴⁰ Stanislaw Lem, "On Stapledon's "Star Maker" ("Le Créateur" d'étoiles De Stapledon)," *Science Fiction Studies* 14.1 (1987): 3 JSTOR. Web. 3 Dec. 2016. <<http://www.jstor.org/stable/10.2307/4239789?ref=search-gateway:d4efdb9ffd67ed50684eb23336cf9c82>>.

⁴¹ Olaf Stapledon, "CHAPTER XVI. THE LAST OF MAN," *Last And First Men* (2010) *Project Gutenberg*. Web. 17 August 2016. <<http://gutenberg.net.au/ebooks06/0601101h.html>>.

⁴² Oliver Markley, "Olaf Stapledon, Personal Reflections on Cosmic Inspiration from a Pioneering Visionary." *Journal of Futures Studies* 20.2 (2015): 123.

⁴³ Markley 123.

⁴⁴ Markley 125.

3.2C. S. Lewis and Christian Science Fiction

Although not exclusively a sci-fi writer, Lewis has secured his place in the British science fiction canon with *Space Trilogy*, consisting of *Out of the Silent Planet* (1938), *Perelandra* (1943) and *That Hideous Strength* (1945). Each part of the trilogy is set on a different planet (Mars, Venus, Earth) and the protagonist (which can be interpreted as a Lewis' alter-ego) is introduced to a new mythology with Christian concepts including abstract ones like the good and the evil, as well as their physical embodiments such as angels and Satan. Specific instances of the use of biblical material include the Earth ("the silent planet") being isolated because of Satan's rebellion or the plot of *Perelandra*, in which the protagonist prevents the Adam and Eve analogies from yielding to temptation, hence avoiding the fall of man and defeating Satan. Despite his ambivalent feeling about their writing and visions, Lewis acknowledged his debt to his predecessors, Olaf Stapledon and H. G. Wells (whom the novels' protagonist has studied).⁴⁵ But the central influence on the trilogy was David Lindsay's *A Voyage to Arcturus* (1920), a space travel novel in form, with deep philosophical questions comprising the backbone of the narrative.⁴⁶ Lewis also stayed true to the British way of writing science fiction, exploring many social issues (e.g. mass vivisection and re-education of the human kind starting as early as the prenatal development taking place in the third novel). His writing echoed his opposition towards assigning science too great an importance on the

⁴⁵ Walter Hooper, *Collected Letters of C.S. Lewis, Vol. II: Books, Broadcasts, and the War, 1931-1949* (San Francisco: Harper Collins, 2004): 236.

⁴⁶ Aldiss 238.

lives of individuals. The social and the philosophical were given priority as the factors with the potential to improve the human condition.

Further, there is an element linking Lewis' science fiction writing and his fantasy works he is more often noted for. He uses speculative fiction to "discuss spiritual crisis of the modern world" with a preference of Christianity as the correct perspective.⁴⁷ Due to this viewpoint, he uses the word "myth" in connection to his writing in a different context than Stapledon – Stapledon's myths are admittedly created by him, they are his vision and speculations about the future. On the other hand, Lewis' myths are used exclusively to convey the truth (the truth Lewis has accepted when he converted to Christianity).⁴⁸ The traditional contradiction between science and Christianity is therefore not present in Lewis' work; rather, their relationship is complementary. Yet, in his theological writing, Lewis was actively dissuading people from scientism. He put emphasis on what he called "humane science", which was compatible with his orthodox beliefs.⁴⁹ And thus his Christian speculative fiction was created. Charles Moorman explains this choice the following way: "Science fiction provides him with a method and a plot, the theology of the Church with a theme." Because of the former, Lewis could not openly speak about the latter. For the sake of fiction, the Christian elements cannot be identified as such, since the fictional aliens did not share the same history and perspective as humans.⁵⁰ But this should not be seen as a fault – it is merely another take on cognitive estrangement, since the different viewpoint, terminology and some events

⁴⁷ Kyoko Yuasa, "C. S. Lewis and Christian Postmodernism: Word, Image, and Beyond." Thesis. Hokkaido University, 2014. Hokkaido University Collection of Scholarly and Academic Papers. Web. 3 Oct. 2016. <http://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/57185/1/Kyoko_Yuasa.pdf> 5.

⁴⁸ Yuasa 6.

⁴⁹ Charles Moorman, "Space Ship and Grail: The Myths of C. S. Lewis." *College English* 18.8 (1957). *JSTOR*. Web. 20 Oct. 2016. <<http://www.jstor.org/stable/372109>> 401.

⁵⁰ Moorman 401.

distance the readers and establish a sharp boundary between reality and fiction, yet the metaphor is clear and allows the readers to apply it to their knowledge of Christianity or religion.

3.3 *Arthur C. Clarke and Space Travel*

Arthur C. Clarke was one of the true science fiction enthusiasts who actively took part in space travel and general scientific research (he has published a number of non-fiction essays).⁵¹ His style has been described as a combination of “the efficient story-telling of American sf with Wells’ social awareness and Olaf Stapledon’s visionary grandeur.”⁵² Clarke is famous as the co-author (together with Stanley Kubrick) of *2001: A Space Odyssey*, which is originally based on his short story “The Sentinel” (1951). However, his bibliography includes many important sci-fi works, such as *Childhood's End* (1953), *The City and the Stars* (1956) and *Rendezvous with Rama* (1972). The former two are fatally flawed utopias; *Childhood's End* introduces a peaceful alien invasion in the name of the collective consciousness embodied in the Overmind and a group of supernaturally gifted children. In contrast, *Rendezvous with Rama* (1973) and its sequels are classical space-opera novels. Edward James asserted that generally, Clarke’s bibliography can be divided to two categories – works concerned with space exploration or colonization and those concerned with the shift from human to the posthuman.⁵³

Mark Brake pointed out how in his works Clarke frequently uses alien encounters as a counterpart to humans; thanks to aliens, Clarke can demonstrate how fragile and immature humans

⁵¹ Aldiss 309.

⁵² James and Mendlesohn 42.

⁵³ David Seed, *A Companion to Science Fiction* (John Wiley & Sons, 2008): 435.

are on a large scale.⁵⁴ It is probably connected to Clarke's genuine interest in space travel – his vast scientific knowledge did not allow him to perceive humans as the most advanced life form in the Universe. Accordingly, he speculated about what the eventual contact with a more advanced life form would bring humanity. Hence Arthur C. Clarke became the first author to bring aliens in the attention of the general reading public and popularize it and *2001: A Space Odyssey* is commonly cited as the decisive work in the popularization attempts.⁵⁵

3.4 Brian Aldiss' Postmodern Science Fiction

Brian Aldiss' work gained attention with his first science fiction novel, *Non-Stop* (1958), in which he examines the concept of a generation ship. He is also arguably the first Anglophone author to dedicate a whole novel solely to this idea.⁵⁶ *Non-Stop* is a space-opera and generally, Aldiss' work consists mainly of hard science fiction and space-operas, aligning him with the mainstream American science fiction. However, Aldiss has a crucial role in the evolution of the genre, so it shall not be assumed he blends in with mediocre American hard sci-fi authors. He has experimented with the standards of the genre, often to change it for good (especially due to his being chosen as one of the four authors the New Wave of science fiction, the rebellion against convention, was based on).⁵⁷ There are many social themes explored, the most current topics being politics and ecology. The latter is used as the main theme in his novel *Hothouse* (1962), set in a far

⁵⁴ Brake and Hook 228.

⁵⁵ Brake and Hook 230.

⁵⁶ Ezekiel Nygren, *Hypothetical Spacecraft and Interstellar Travel* (Lulu.com, 2015): 14.

⁵⁷ Roberts 334.

future, after the Earth has stopped rotating and new species have evolved. More importantly, the protagonist of this novel is what Adam Roberts calls a “(deconstruction) of notions of character,” because the character, although humanoid in form, practically lacks any consciousness.⁵⁸ Vivid portrayal of sensation is favoured over clever dialogue, which is an innovative technique to employ in science fiction writing.

Aldiss’ *Helliconia* trilogy (*Helliconia Spring* 1982, *Helliconia Summer* 1983, *Helliconia Winter* 1985) is a chronicle of a planet in distant future, when living conditions have changed drastically due to environmental changes and seasons last thousands of years. This series is often noted for its complexity as well as some innovative elements again (Earth is rather soulless in comparison with *Helliconia*, similarly to the *Hothouse* protagonist who lacks a reasonable amount of consciousness in comparison to the superior fungus).⁵⁹ Aldiss has also written works directly inspired by some of the already mentioned antecedents of British science fiction – namely *Frankenstein Unbound* (1973) and *Moreau’s Other Island* (1980). Together with *Dracula Unbound* (1991), these three works present another dimension of Aldiss’ postmodern take on fiction, as he deconstructs and reconstructs under a different conditions classic literary works of high (both historical and literary) value.

3.5 George Orwell’s *Dystopia*

George Orwell was not one of the authors that had contributed new revolutionary elements to the sci-fi genre, yet he is among the most popular ones. The former claim is supported by the

⁵⁸ Roberts 263-4.

⁵⁹ Roberts 305.

fact that Orwell has been repeatedly accused of writing *1984* heavily based on the dystopian novel *We* (1921) by Russian author Yevgeny Zamyatin.⁶⁰ Brian Aldiss argued that the appeal of *1984* (1949) at the time of its publishing and the reason it became an immediate success was that it “embodied all too effectively the depression prevalent in England and Europe at the time of its composition, as an aftermath of war.”⁶¹ The dark and pessimistic mood caused by the war permeates the whole novel and the social aspect is very clear, since *1984* is a depiction of a totalitarian system and an inherently political piece of writing (other themes include control, manipulation, censorship) which serves as a warning. Another reason the novel was popular among the general public was that Orwell’s writing was relatable to the working class, as he was generally sympathetic towards those people and reflected it accordingly (see for example the semi-autobiographic memoir *Down and Out in Paris and London*). *1984* is also a prime example of soft science fiction, because even though advanced technology is mentioned, technological detail is never given and overall it serves more as a background for a story about psychological manipulation and horrors of a totalitarian regime. Adam Roberts likened to the work of Olaf Stapledon in terms of its subtlety.⁶²

3.6 Aldous Huxley’s “Utopia”

Aldous Huxley is most frequently noted for his arguably dystopian novel *Brave New World* (1931). But he has also written a counterpart to it – the utopian novel *Island* (1962). In both books,

⁶⁰ Aldiss 302.

⁶¹ Aldiss 301.

⁶² Roberts 209.

Huxley incorporates a plethora of ethical issues including drug consumption, assisted reproduction or sex-positive attitude. The problem with classifying *Brave New World* simply as a dystopia is that except for a few characters, the majority of *Brave New World*'s society does not experience any negative, let alone oppressive consequences of the way it is set up. On the contrary, the soma-induced states of elation as well as the casual sex orgies constitute an immoral utopia for them (see the following quotation describing the situation: “(the soma transferred them to) another world—the warm, the richly coloured, the infinitely friendly world of soma-holiday. How kind, how good-looking, how delightfully amusing every one was!”⁶³). Besides *1984*, *Brave New World* is also argued to have been based on Zamyatin's *We*, yet it manages to be a radical work bringing novelty to British science fiction. Huxley achieved this by setting the story in a future hundreds of years distant and revolutionizes everything about the society, including the role of family, relationships, work (and predetermined jobs based on the caste one is born into), reproduction and religion. Huxley voices fear of industrialization, using the United States of America as a symbol of the cold, capitalist evil.⁶⁴ Although, as Roberts argued, this is not the main merit of reading the novel – the focus should be on the subtleties of placing in on the utopia-dystopia spectrum and the commentary Huxley thus makes about traditional utopias.⁶⁵ Nevertheless, Huxley has revised his decision in a later edition of *Brave New World*, in which he has written:

If I were now to rewrite the book, I would offer the Savage a third alternative. Between the Utopian and primitive horns of his dilemma would lie the possibility of sanity.... In this community economics would be decentralist and Henry-Georgian, politics Kropotkinesque co-operative. Science and technology would be used as though, like the Sabbath, they had been made for man, not (as at present

⁶³ Aldous Huxley, *Brave New World* (New York: Harper, 1950): 77.

⁶⁴ Aldiss 229.

⁶⁵ Roberts 159.

and still more so in the *Brave New World*) as though man were to be adapted and enslaved to them.⁶⁶

This explains the radical differences with which the elements *Brave New World* and *Island* share are depicted. Because although for instance drugs are present in both novels, the attitude towards them is nothing alike. The function of science is also altered to a somewhat more humane form. Huxley had always been close to science and scientists, since the Huxleys were a prominent British family including biologists and evolutionists, which may have sparked his interest in this field of speculative fiction in the first place, but as science progressed and Huxley grew older, his perspective on what the role of science in our everyday life should be. And thus, a twisted utopia becomes a traditional one.

3.7 Gwyneth Jones and Gender in Science Fiction

Gender is a theme that became prominent later in the development of the science fiction genre, accordingly with the development of the way gender was perceived in society. Joanna Russ noted that as late as the 1960s, science fiction stories were still dominated by male adventurers exploring the outer space and women were simply the “supporting characters”, their wives and mothers.⁶⁷ Brian Attebery adds that the reason this trope was still wide-spread was that the genre was dominated by conservative men, both in the audience and as the authorities (the editors, the publishers, etc.) and hence there was no room for experimenting with the concept of gender.⁶⁸ But

⁶⁶ Aldous Huxley, *Brave New World and Brave New World Revisited* (New York: Harper Perennial Modern Classics, 2005): 7.

⁶⁷ Joanna Russ, ed. Susan Koppleman Cornillon, "Images of Women in Science Fiction." *Images of Women in Fiction: Feminist Perspectives* (Bowling Green: Bowling Green State University Press, 1972): 81.

⁶⁸ Brian Attebery, *Decoding Gender in Science Fiction* (New York: Routledge, 2002): 5.

the number of female authors was rising and slowly, a whole SF subgenre based on gender issues emerged.

One of the key authors of British feminist science fiction is Gwyneth Jones. Jones not only represents British female sci-fi authors on this list; she represents women in her writing. She works with themes of feminism, gender and sexuality. Jones also wrote children's literature and high fantasy, explaining her choice by arguing "there is nothing like constructing a world, or recognising a constructed world, for teaching you to see your own world as a construct."⁶⁹ This claim is applicable to speculative fiction in general, but in the case of feminist writers such as Jones, or the Americans, Joanna Russ and Ursula K. Le Guin, it adds an additional dimension, since they can use the readers' recognition of their world as a construct to help them recognize gender roles, stereotypes and even gender itself as mere constructs too. In "Balinese Dancer" (1997) Jones imagines the discovery that evolution of gender away from all differences between the binary categories of sex has already started, and the contrasting male and female perspective on this discovery. In the *Aleutian trilogy*, she depicts a gender war of those who believe in male superiority against reformers who want to change the status quo while the alien Aleutians are used as a prop for channelling the confusion around the flawed human concept of gender.

3.8J. G. Ballard – *The Role of Setting in the Creation of Dystopia*

J. G. Ballard belongs to the postmodern group of authors who did not produce only science fiction but rather experimented with different modes of writing. Thus, one of his major novels is not science fiction; it is a semi-autobiographical war novel *The Empire of the Sun* (1984). Still, in

⁶⁹ Gwyneth A. Jones, *Deconstructing the Starships* (Liverpool: Liverpool University Press, 1999): 6.

his science fiction writing, Ballard “moved away from the more recognisable conventions of SF and became fascinated with the actuality of urban desolation,” as Roberts formulated it.⁷⁰ In one of his first novels, *The Drowned World* (1962), Ballard explores psychology, relationships and the concept of the genetically inherited collective unknown, set after a radical climactic change. Humans are the passive victims of Nature’s whim; hence people play only a supporting role in this novel, due to their powerlessness. In contrast, Ballard’s more famous novels, such as the dystopian *Concrete Island* (1974) and *High-Rise* (1975), are set in future visions of urban environment. That allows Ballard to speculate about the effect such environment has on human psychology (e.g. the effect of brutalist high-rise buildings on the individuals living in them) and hence there is little space to explore the natural world. After all, it was Ballard who, in his *New Worlds* editorial, claimed “it is inner space, not outer, that needs to be explored.”⁷¹ Furthermore, this inner space became the central setting of New Wave science fiction literature.⁷² And what else is an isolated community of residents than self-contained inner space where human psychology plays the major role? The outer space, the universe, the intergalactic travel and all the other elements connected to space exploration are put aside by Ballard. Istvan Csicsery-Ronay, Jr. specifically formulated Ballard’s stance as the belief that “SF should emphasize the symbolic dimensions and psychological dysfunctions of technology-saturated social life.”⁷³

⁷⁰ Roberts 249.

⁷¹ Roger Luckhurst, *Science Fiction* (Cambridge: Polity, 2005): 148.

⁷² Seed 334.

⁷³ Seed 54.

3.9 John Wyndham and Alien Invasions

John Wyndham has written many stories about invasions of different sorts. But the invaders in his novels are not the traditional Martians known from other writers and stemming from Wells' work. Wyndham materializes human fears in unique forms and subsequently warns planet Earth about venomous mobile plants in *The Day of the Triffids* (1951), about mysterious aliens who are never revealed during the invasion in *The Kraken Wakes* (1953) or about children possessing supernatural abilities in *The Midwich Cuckoos* (1957). These forms represent the agent in the feared human extinction, because the fear Wyndham portrays is not fear of extinction as such, under whatever circumstances. Rather, it is "the fear of human extinction at the hands of some more advanced or ruthless species" and that is why Wyndham's most famous novel features highly advanced killer plants instead of for instance a natural disaster.⁷⁴

Gifted children in the role of antagonists is an example of what Adam Roberts describes as an important moment, a combination of resonance, mystery and the poetic image.⁷⁵ He also singled the novel out as a ground-breaking work because it is one of first sci-fi novels to be concerned with global nativity and not global mortality (the birth of the superior children), which used to be the traditional threat for humanity.⁷⁶ Children generally play a major part in a number of Wyndham's novels; they are always different, alien and superior to humans, as David Ketterer observes.

⁷⁴ Nicholas Ruddick, *The Ultimate Island: On the nature of British Science fiction* (Westport, Connecticut: Greenwood Press, 1993): 139.

⁷⁵ Roberts 187.

⁷⁶ Roberts 210.

Namely, those novels include *Planet Plane* (1936), *The Chrysalids* (1955), *Chocky* (1968), the already mentioned *Midwich Cuckoos* and some of Wyndham's short stories.⁷⁷

Additionally, John Wyndham is closely tied to the term "cosy catastrophe" coined by Brian Aldiss. It denotes fiction about catastrophes during which the protagonist experiences absurdly little amount of trouble. Aldiss' very plain and straightforward definition of a cosy catastrophe is as follows: "the hero should have a pretty good time (a girl, free suites at the Savoy, automobiles for the taking) while everyone else is dying off."⁷⁸ The primary work exhibiting a storyline in accordance with this is Wyndham's already mentioned *The Day of the Triffids*. Although Wyndham is seen as the author who shaped cosy catastrophe, he is not exclusively connected to it. Conveniently, J. G. Ballard's *The Drowned World* (1962) mentioned in the previous section is also an example of cosy catastrophe, with the main character experiencing the world's end from the Ritz.

3.10 Ken MacLeod's *Socialist Hard SF*

Ken MacLeod's writing to that of Brian Aldiss in the sense that he is also focused on hard science fiction. After all, he had spent ten years working in the information technology industry and therefore he has had a solid basis of practical, technical knowledge, upon starting to write sci-fi literature.⁷⁹ For example in his novel *Cosmonaut Keep* (2000) he utilized his knowledge and made the protagonist a programmer (but it is only a minor part of the story which features elements

⁷⁷ Roberts 211.

⁷⁸ Aldiss 316.

⁷⁹ James and Mendlesohn xi.

such as two separate narrative layers, flying saucers and aliens). However, MacLeod adds another dimension to his novels – socialism, anarchism, communism and Trotskyism permeate his writing, because of his personal interest in those ideologies.⁸⁰ He creates societies based on those principles and speculates how each of the scenarios would unfold. The already mentioned *Cosmonaut Keep* too features characters representing many different political beliefs. In the novel, the European Union has been absorbed the communist bloc, hence the main two world powers are represented by the US and Russia, but various minor factions are contained within these two major political structures, so MacLeod presents a larger spectrum than a simple fight between Russia and the USA. But he is more often noted for the older and also heavily political *Fall Revolution* series (1995, 1996, 1998, 1999), which is very similar to *Cosmonaut Keep* in the way it incorporates politics (the scope of ideologies represented and the objectiveness they are represented with). But in this work, MacLeod envisions a near-future state in which the world has been balkanized, as opposed to the large communist bloc in *Cosmonaut Keep*. The element of political speculation is accentuated by MacLeod's use of the fact that it is a series. Because it is not written as four consequential novels; rather, the last two serve as alternate routes from the same departing point. Another example of MacLeod's left-oriented science fiction is his sci-fi espionage novel *The Restoration Game* (2010), centred around Russian politics.

3.11 Adam Roberts' Academic Approach

Adam Roberts writes both science fiction and about science fiction literature; his *History of Science Fiction*, among others, proves his expertise. His work is creative and he has written distinct,

⁸⁰ James and Mendlesohn xi.

heterogenous fiction, including parodies and pastiches (*Jack Glass*, 2012; *The Thing Itself*, 2015). One of his earlier and more traditional sci-fi novels, *Stone* (2002), is set in a post-scarcity utopia (similar in concept to that used by Iain M. Banks in his *Culture* series) in which it is impossible to murder someone, yet people casually switch between sexes or otherwise alter their bodies. In *Swiftly* (2008), Roberts pays homage to Jonathan Swift – the novel is a sequel to *Gulliver's Travels*, set one hundred years later (thus making it an exemplary alternate history science fiction novel). *Yellow Blue Tibia* (2009) is a playful take on the alternate history subgenre, incorporating satire and comic relief characters into Soviet setting. *New Model Army* (2010) is a near-future military story speculating about a possibility of using the internet to turn civilians into a professional army. This brief excursion through a selection of Roberts' work demonstrates that if his style can be characterized as a whole by any attribute, it is diversity. Each of his novels is a distinct experience (quite literally, as the only sequel he has written is a sequel to another author's work) and the only linking element is Roberts' thorough knowledge of the genre and its history, common tropes and important works.

4 SF as Means of Political Speculation

The brief excursion through the history of British sci-fi has shown that it has more often than not been a means of speculation. Essentially, science fiction is a genre of speculation (hence the overlap between science fiction and speculative fiction). It speculates about a vast spectrum of things, including the impact of technology, extra-terrestrial life or simply the future of the human race. The term ‘speculative fiction’ in general can be applied to any SF work, regardless of the country of origin or subgenre. But in the case of British science fiction, the realm of SF where social fiction is the dominant subgenre, there is another domain adding to the layered nature of the literature. Not only is most of British sci-fi literature social fiction, regardless of whether it falls under the subgenre of space opera, time travel or dying Earth; further, most of the social sci-fi literature can be interpreted as political speculation. Donald Hassler and Clyde Wilcox have pointed out the similarity between science fiction and political fiction:

Political theorists debate the role of the state and speculate about the nature of a just society. Their theories are sometimes fleshed out into hypothetical societies by those who write of political and social utopias. Theorists also write of the role of various social elements such as class and gender in the conduct of the state, and conduct "thought experiments" in which they imagine a world without these distinctions. Once again, science fiction writers frequently imagine worlds in which species change genders at will, in which class is irrelevant, in which various religious groups (...) rule. Political theorists and science fiction writers alike are also continually aware of the role language itself plays in politics. Political theorists use a variety of techniques to determine how meaning is embedded in language, and how that meaning structures the way we think about politics. Science fiction writers also focus on language, both subtly and more overtly.⁸¹

⁸¹ Donald M. Hassler, and Clyde Wilcox, "Introduction" *Political Science Fiction*, eds. Donald M. Hassler and Clyde Wilcox (Columbia SC: University of South Carolina, 2011): 1.

According to Tom Shippey and the supporters of his theory, it is impossible to find a science fiction work that is *not* political, as by (his) definition the genre is a reaction to our ever-changing reality and thus all alien encounters, alternate histories or the future of the human race are inherently political and stem from the author's experience with the current social constructs.⁸² It should also translate easily to the readers through a sense of cognitive estrangement mentioned in the introductory chapter, thanks to which they will (even though maybe subconsciously) compare their reality with the fictional one to derive the principal ideas of the work.

By speculating about the possible future (often horrifying), some argue famous sci-fi novels have stopped them from becoming true. If nothing else, even the fact that some defend this opinion shows that SF literature and actual political scene influence each other greatly. After writing two non-fiction works about social issues, Wells has opted for a novel, claiming: "I have done my best to make the whole of this book as lucid and entertaining as its matter permits, because I want it read by as many people as possible."⁸³ This shows Wells' awareness of the fact that fiction (and specifically science fiction) can be successfully used to spread the author's ideas concerning political, social and other issues and hence make a difference in the mindset of large groups of people. One of the most ground-breaking changes the world owes to science fiction is the perception of race (however, this was a rather American issue – see Robert A. Heinlein's *Starship Troopers* (1959), where the hero is revealed to be black halfway through the novel or the taboo breaking kiss between Kirk and Uhura in the US television series *Star Trek*). And as June Deery notes, even if the ideas do not spread or get adapted, the writing functions as a sandbox not only to

⁸² Frederic Pohl, "Politics of Prophecy" *Political Science Fiction*, eds. Donald M. Hassler and Clyde Wilcox (Columbia SC: University of South Carolina, 2011): 7.

⁸³ Herbert G. Wells, *A Modern Utopia* (London: Penguin, 2005): 7.

speculate about a theoretical political model, but also to speculate about the reactions to it, its consequences etc., if one is to write a convincingly realistic piece.⁸⁴

4.1 Utopia and Dystopia

Dystopias and utopias are exemplary demonstrations of the combination of science fiction and politics. The beginning of the dystopian sci-fi genre can be traced back to H. G. Wells, but today the classic canon of the genre also includes works such as E. M. Forster's "The Machine Stops" (1909), Aldous Huxley's *Brave New World* (1931) and George Orwell's *1984* (1949).⁸⁵ Dystopias and utopias are probably the core genres of political speculation in general, as they construct either an idealistic or pessimistic alternative state of affairs. The scope of their predictions/criticism can vary, as some authors depict utopian/dystopian versions of their country and others of the whole world. Both utopias and dystopias traditionally include the author's comments on the actual situation outside fiction. Some offer solutions, some simply highlight the flaws of the current system. The former of course is the true political speculation, the latter being a mere observation.

However, there is a wide spectrum of possibilities between pure speculation and pure observation, hence some degree of speculation can be found in most utopias/dystopias, whether they are speculations about the immediate consequences of the present situations set in a fictionalized reality or about the long-term development of the present situation into a caricature of itself

⁸⁴ June Deery, "H. G. Wells's "A Modern Utopia" as a Work in Progress." *Extrapolation* 34.3 (1993): 216. *ProQuest*. Web. 21 Sept. 2016. <<http://search.proquest.com/docview/1304235530?accountid=35514>>.

⁸⁵ Raffaella Baccolini, and Tom Moylan, *Dark Horizons: Science Fiction and the Dystopian Imagination* (New York: Routledge, 2003): 1.

(eliminating all positive/negative aspects of it in the radicalisation process). This tool is powerful for two main reasons: fictional literature can attract a wider audience than non-fiction political literature, and the fictionalised setting conveniently distances the readers from the reality, hence they comprehend its message easier by gaining a whole new perspective on the situation. June Deery's typology of utopias/dystopias further elaborates on the distancing effect – she distinguishes between utopias that try to persuade the readers the place described already exists (verisimilitude) and those that persuade them that it should exist (imperative realism). It is the same case with dystopias, except there is the desire to persuade that they should not exist.⁸⁶ Despite this difference she argues that both types force the readers to acknowledge the utopian scenario is not (currently) real. Subsequently, by affecting the minds of the masses, this accessibility can cause changes in the current development of society, political situation and more. Frederik Pohl for example claimed that the reason the reality of the year 1984 was different from that of the fictional, eponymous novel may be that Orwell warned the people and thus averted the scenario.⁸⁷

The close connection between politics and sci-fi utopias/dystopias is also apparent when one examines the chronological development of such writing. In the beginning of the utopian genre, the writing was heavily influenced by socialism and Marxism.⁸⁸ But as the time passed and the political situation in Britain and worldwide changed, so did the mood of the writing. Socialist ideals were gradually replaced by dystopian threats of the upcoming changes and the 1980s saw the final dramatic decline of utopian literature. Raffaella Baccolini and Tom Moylan identify economic restructuring, right-wing politics and increasing commodification as the main accelerators of the

⁸⁶ Deery 30.

⁸⁷ Pohl 9.

⁸⁸ Baccolini and Moylan 2.

change that abandoned utopia and embraced dystopia.⁸⁹ And of course, it is important to view the two opposites as two poles of a spectrum rather than two separate categories. The boundaries are penetrable and while sometimes it is still easy to recognize a novel as either of them, in some cases the proportions are balanced out. Furthermore, it is typical that most of the characters believe they live in a happy utopian society while only a few are “enlightened” enough to see through it, realize the dystopian horrors that surround them and try to revolt against the system, either in small groups or independently. Further, Phillip E. Wegner points to Darko Suvin, who placed emphasis on the connection between a utopia and its historical context, explaining how utopias age quickly, since they are usually only perfect in comparison to the situation at the time and place it has been written.⁹⁰

4.2 Exemplary Texts

In the introductory section, H. G. Wells and his most famous (and closest to the actual genre) science fiction stories (*The Time Machine*, *The Invisible Man*) were discussed. In terms of quantity of political subtext, *The Invisible Man* contains the least, *The Time Machine* represents the somewhat covert political content (the author simply introduces a dystopian alien society but without much detail in terms of its functioning) and *A Modern Utopia* (1905) holds the primacy, being the most comprehensive and overt commentary on politics. It consists of eleven chapters exploring the functioning of an Earth-like planet – local habits, customs and traditions, law, economy and overall organization and it does so in an almost non-fiction narrating manner. Apart

⁸⁹ Baccolini and Moylan 2.

⁹⁰ Seed 80.

from political structure it deals with social issues such as race (and racism), gender roles and meat consumption, thus making it a prototypical early example of social science fiction.

The only problem (as with many utopias) is that it is much more leaning towards the definition of dystopia – the population seems to strive, but that is only because the “undesirable” are sent away into isolation. Pets are eliminated because they spread illnesses and the undesirable people who have become victims of various vices are gotten rid of analogically. And again, as in many utopias, reproduction is controlled and only the fit are allowed to procreate, effectively establishing a “mildly” eugenic system.

Aldous Huxley faced similar problems. His famous novel *Brave New World* is an ambiguous combination of utopian and dystopian elements, which is, after all, very typical of social science fiction (the authors of which often proposed some level of eugenics to improve the human kind in the long run). This is again an example of reflecting the author’s ideas through his science fiction writing – in the non-fiction piece *Brave New World Revisited* (1958) Huxley genuinely proposes eugenics as a solution to over-population. However, despite the existence of an “official” eugenics movement at that time and prior to it, it has soon gone out of fashion to support it. The main reason probably being the World War II and Nazi pro-eugenics actions, that made it no longer acceptable to consider any groups of people to be either superior or inferior and treat them likewise (including sterilisation of the unfit and similar radical ideas). It is one of the novels whose position on the utopian-dystopian spectrum is questionable. The ambiguity is caused by the origin of the novel – Huxley wrote it as a parody of Wells’ utopian stories.⁹¹ Many of the characters in *Brave New World* may find the world they live in utopian, particularly thanks to their consumption of soma. But from

⁹¹ Aldous Huxley, *Letters of Aldous Huxley*, ed. by Grover Smith (New York and Evanston: Harper & Row, 1969): 348.

an outsider's perspective (whether it be a depressed character that simply does not belong or the actual readers of the novel), dystopia prevails.

An example from among the contemporary British sci-fi authors is Iain M. Banks, particularly his Culture novels. It was already mentioned that Baccolini and Moylan identified the 1980s as the turning point, the final decline of the classical utopia and its replacement by critical dystopia. Banks' series can be seen as the last important representative of the older genre, because at its core it really is very traditional, due to its portrayal of socialism. The society had reached a post-scarcity state and no one has any obligations – all the work is taken care of by machines and no one is obliged to do anything they would not enjoy. The society is so developed that there is no cruel segregation of people based on their quality or contribution – possibly because there is no need for it *anymore*. No exploitation takes place. Hence it is one of the works which are truly utopian and the dystopia is present only in the form of doubt and the foresight speculations about what will inevitably go wrong at some point.⁹² To avoid too unrealistic, fairy-tale like tone, Banks does not present the Culture as the only existing form of society – it is something that had to be achieved with effort and not every society is capable of it, which is deductible from the fact that there exist other civilizations parallel to the Culture but their advancement is varied.

It has already been mentioned that many utopias arguably fit the dystopian criteria as well and therefore their interpretation is ambiguous, even though that can be a very subjective thing (one person's utopian dream is another one's dystopian nightmare and vice versa, based on their priorities and ideals). However, what was not mentioned yet is the fact that it is essential for critical

⁹² Iain M. Banks, "A Few Notes on the Culture," *Vavatch.co.uk*, 10 Aug 1994
<<http://www.vavatch.co.uk/books/banks/cultnote.htm>> 14 September 2016.

utopias to “(be aware) of the limitations of the utopian tradition”⁹³ and therefore, by acknowledging the problems and limitations, the theoretical consequences can often be so negative that they might even outweigh the basic utopian starting points.

4.3 Other Forms of SF Political Speculation

Of course, speculation does not always take the extreme form of the ideal or the frightening vision of our own future. Besides the aforementioned utopian/dystopian subgenre, it can be often observed in SF writing that features a character exploring alien societies which differ from the one the character comes from. These are often neutral in terms of the utopian-dystopian spectrum; they are simply different or new. Thus, the politics are often more concealed than in a straight-forwardly political dystopia and are secondary to the story. One of the essential devices in fiction is political satire, the foundation stone of which is Jonathan Swift’s work *Gulliver’s Travels*, already examined as one of the early predecessors of science fiction. It heavily works with the “new” and “different”, since it is not a depiction of a thoroughly constructed political system but rather a list of brief encounters where mostly just the basics of various systems are sketched out.

Out of the British contemporary authors, Adam Roberts (who also writes non-fiction about sci-fi literature) has produced a very different and up-to-date SF novel *New Model Army* (2010). It described a futuristic mode of combat training/planning/executing – using a private wiki where battling amateurs can access information and learn and train as well as through which can the soldiers communicate in real time during the actual battles. Another unique aspect of this novel is

⁹³ Baccolini and Moylan 2.

its style – it is not a sci-fi novel in the traditional sense. The traditional structures have given way to a war novel where the element of science is minimized. Instead, Roberts discusses the nature of concepts such as faith, democracy and of course war. The basic premise of the story is introduced rather briefly, without further elaboration (in contrast with the discussions of the concepts mentioned above) and therefore it is a very specific example of a SF novel, representing the subgenre called military science fiction. Nonetheless, the plot of the story is a “not-completely-unlikely” scenario of the near future and politics is incorporated into the story overtly and hence it is interesting to compare with other political sci-fi novels.

His colleague Ken MacLeod is another key SF author. He has published his writing since 1995 and arguably his most important work is *The Fall Revolution* series. He employs the novels to discuss different political ideologies including Trotskyism, socialism, capitalism, anarchy and libertarianism. In the four novels, MacLeod explores various scenarios regarding the mentioned political ideologies but also technological, military and financial aspects. He uses the series to create a dense vision of fictional history and future, utilizing facts from Britain’s political history (Nick Bentley observed that the proposed future is “rooted in the factionalism of the British Left in the 1970s”).⁹⁴ Despite his personal experience of sympathizing with the Trotskyist movement, MacLeod attempts to stay neutral in depicting the political situation and to simply present the issues from various perspectives to the readers, which is accentuated by the fact that the novels do not represent a chronological line of sequels. In the last two novels, *The Cassini Division* and *The Sky Road*, MacLeod presents alternate routes the fictional history could have followed and this way further deepens the speculative political element.

⁹⁴ Nick Bentley, *British Fiction of the 1990s* (New York City: Routledge, 2005): 88.

5 Other Subgenres of British Science Fiction

5.3.1 Time Travel

Time travel is undoubtedly an important subgenre in British science fiction, due to its origin being connected to H. G. Wells' *The Time Machine*. In the story, Wells operated with travelling to the future of another planet, but of course one can travel to the past too. The destination is irrelevant for its classification as a time travel story; time travel is freely combined with other subgenres and hence there can be a space opera (e.g. travelling through space and exploring alien civilisations from the future) and an alternate history (e.g. a fictional version of Earth twenty years ago), both featuring time travel as a key element to the story. Proving the importance of *The Time Machine*, Stephen Baxter published a sequel called *The Time Ships* in 1995. Baxter is a major British sci-fi author whose work comprises mainly hard sci-fi and alternate history, but he has also written a couple of sequels to iconic science fiction novels. *The Time Ships* is an authorized sequel to Wells' work and he has collaborated on *A Time Odyssey*, a time travel series connected to the *Space Odyssey* (2003-2007), with Arthur C. Clarke. Another example is to be found for instance in Brian Aldiss' short story "The Failed Men" or John Wyndham's "Wanderers of Time." The persisting popularity of the genre is generally attributed to many different aspects including human desire for immortality, nostalgia for the past and the realization how valuable time is and therefore the desire to be able to "save" it by freely moving back and forth on the timeline.⁹⁵

⁹⁵ Paul J. Nahin, *Time Machines: Time Travel in Physics, Metaphysics, and Science Fiction* (Woodbury, NY: AIP, 1999): 13.

5.3.2 *Alternate History*

Andy Duncan defines alternate history as “a work of fiction in which history as we know it is changed for dramatic and often ironic effect” and further divides it based on whether the moment of divergence is dramatized or not.⁹⁶ In the case of the latter, the reader has the opportunity to explore not only the future of the fictional world, but also the past that lead to the present moment.⁹⁷ It is again a clear demonstration of how science fiction works as a means of political speculation, only in this case it speculates about the past and does not attempt to predict the future (unless the divergence they employ would happen the same way but in the future, still leading to the exact same result, which is unlikely).

Darko Suvin also formulated a definition of his genre and he has put emphasis on a more serious use of sci-fi literature, describing alternate history as being “used to articulate different possible solutions of societal problems, those problems being of sufficient importance to require an alteration in the overall history of the narrated world” and hence he sees it as superior to utopian and anti-utopian literature in its reach and focus (although he admits apart from the serious writing there is a comico-satirical branch of this subgenre).⁹⁸ Typically, this subgenre is dominant in the American branch of science fiction, but the British scene offers some unique takes on it – see for example Stephen Fry’s comic version of time travel literature revolving around killing Hitler and the hence created alternative reality in *Making History* (1996). The British comico-satirical

⁹⁶ James and Mendlesohn 209.

⁹⁷ James and Mendlesohn 209.

⁹⁸ Suvin 149.

alternative history began with the already mentioned *Erewhon* by Samuel Butler, aimed at the growing industrialization and Puritan hypocrisy.

5.3.3 *Dying Earth*

Another subgenre often used by British sci-fi authors, whether rather as a minor element or as the primary plot, is called the Dying Earth. It is one of the overtly social subgenres used to spread awareness about ecological issues. It takes the readers forward in time to show them and warn them about the eventual outcome of wasting nature's resources and destroying the natural cycle of things. Once again, it goes back to the father of British (social) science fiction, H. G. Wells; it is present in the already discussed *The Time Machine*. Other British authors connected to this subgenre include William Hope Hodgson from the ranks of the eldest authors or Brian Aldiss on behalf of the contemporary ones, particularly Aldiss' novel *Hothouse* (1962). *Hothouse* seems by far the most ecologically oriented – it features a sentient fictional symbiotic fungus which positively affects its host's intelligence. People live in tribes, some of which have adapted to the new conditions and apart from the fungus, there are other uniquely evolved species. On the other hand, the novel *On the Beach* by Nevil Shute, a British author who had moved to Australia, depicts Dying Earth with military elements brought into play. It is set after World War III, which made most of the planet uninhabitable due to contamination of the atmosphere with nuclear fallout which continues to spread. This story is not concerned with the natural world and potential results of future evolution as Aldiss', but is focused strictly on mankind in its current state and with the fate it has brought upon itself with human flaws and man-made weapons.

5.3.4 *Biopunk*

The concern with evolution is in the centre of the domain of another subgenre – biopunk. Biopunk is generally perceived as a branch of cyberpunk, but the interest in a sort of forced, artificial evolution can be traced further back in history. Cyberpunk is focused on advanced technology featuring artificial intelligence in various forms and similar futuristic visions. Thus, this genre naturally experienced the biggest rise in popularity in the 1980s, when computers and the internet were on the rise as well, fundamentally changing society. But biopunk is not that limited – even though the scope of biological discoveries has too progressed dramatically in the late 20th century, biology as a science was considerably developed already in the 19th century when it was divided into different disciplines. The formation of the genre under this label may have waited until the extensive studies of DNA could be carried out (per Annalee Newitz biopunk consists of creative genetic engineering, RNA research, cloning and protein synthesis⁹⁹) but many authors discussed closely related issues in their work practically since the beginnings of science fiction.

An example can be found in H. G. Wells' work *The Island of Doctor Moreau*. Wells does not work with natural alternative evolution or scientifically accurate alterations of DNA; he creates a story about a doctor creating human-animal hybrids which does not aspire to be scientifically accurate. Instead, he uses this basic premise to ponder issues such as human nature, cruelty and the consequences of interfering with nature. This way he echoes the observation that antecedents of science fiction and early examples of the writing of the genre were using the typical themes and images as tools helping them build their argument about philosophical questions, often fuelled by current scientific progress (and the tools embody fears brought on by this). John Wyndham drew

⁹⁹ Lars Schmeink, "Biopunk 101," *SFRA Review* 309 (2014): 31.

from another Wells' work, *The War of the Worlds*. Although this novel poses a theoretical future evolution process, the main theme is Martian invasion. Wyndham used it as an inspiration for his novel *The Day of the Triffids*, which also features "alien" invasion, but the "aliens" are in fact aggressive plants. Their origin is unclear, but they are believed to be created by a scientist in an experiment (possibly accidentally), hence neither of extra-terrestrial origin nor the result of natural evolution.

5.3.5 *Hard SF vs Soft SF*

The definition of hard science is complicated to establish, as Kathryn Cramer observes in *The Cambridge Companion*.¹⁰⁰ It has a special position because it is not a subgenre of science fiction per se – it is rather one of two ways every sci-fi writing can lean towards. It combines with the main subgenres freely. But Cramer argued that to study hard SF, it needs to be accepted as a separate genre. The fundamental attribute of hard science fiction is that "relation to and knowledge of science and technology is central to the work."¹⁰¹ David Hartwell attempted to list the features of hard sci-fi to achieve a more precise classification of the genre. He observed that there is a special focus on truthfulness and plausibility of the proposed scenario, so not only must the author dedicate a fair amount of space in his book to the technical and scientific details, but he must also do so after having acquainted himself with the matter thoroughly, in order to be competent to estimate the scientific plausibility of the scenario.¹⁰² As a consequence, the writing style may often

¹⁰⁰ James and Mendlesohn 186.

¹⁰¹ James and Mendlesohn 187.

¹⁰² James and Mendlesohn 187.

lean towards descriptivism. Hartwell also argued that it is dependent on external scientific knowledge and on being didactic. The external scientific knowledge is a commonly shared element in (hard) sci-fi literature. Even though hard SF is didactic, a certain level of knowledge is usually required from the reader to fully comprehend the story and the authors simply assume the readers have this elementary scientific understanding, using it as a basis to expand and work on. However, even though such approach grants hard SF literature value and importance, it becomes dated very quickly. To remember Shippey's definition of science fiction – it is a genre of change which reacts to human progress. The boundaries of human scientific knowledge expand very quickly and thus a 1990 hard SF novel will appear much less relevant to a first-time reader than it did upon the time of publication. What then seemed ground-breaking and visionary is now an amusing relic of the past, which is applicable to both technology as well as literature about it.

Due to its focus on realism, facts and accuracy, hard science fiction also had a major impact on reality. Specifically, in the 1980s a number of hard sci-fi writers successfully promoted the Strategic Defense Initiative (another sci-fi author, Greg Bear, claimed: "Science fiction writers helped the rocket scientists elucidate their vision and clarified it. They put it together in prose that Ronald Reagan could understand, and Ronald Reagan, who read science fiction, said "Why not?"")¹⁰³ However, this saw the split of British and American hard science fiction due to the rise of right-wing politicization of the genre in the US.¹⁰⁴

¹⁰³ James and Mendlesohn 193.

¹⁰⁴ James and Mendlesohn 193.

5.3.6 *Social SF*

The last subgenre of science fiction relevant in this examination of British science fiction is the most important one. That is because it is the subgenre that most often overlaps with many other subgenres quite commonly in British sci-fi literature. Regarding the ‘soft’ versus ‘hard’ science fiction distinction, social sci-fi is closely connected to soft science fiction. The focus on scientific accuracy and technology is replaced with social commentary. Christopher S. Leslie claimed that the key attribute of social sci-fi is that it sparks a public debate about the relationship between society and technology.¹⁰⁵ He also argues that social science fiction tends to be simpler in terms of narration (using mostly third person omniscient narrator or first person report) and that the plots follow standardized patterns.¹⁰⁶ However, since writers often combine many subgenres, the latter is not a universally applicable definition. Naturally, social science fiction most often overlaps with books on the utopia-dystopia spectrum, which feature some sort of a commentary inherently. But (especially in British literature) it is frequently combined with all the subgenres mentioned above, and to a lesser extent even in other subgenres. The reasons these were not discussed above is that either they are in the domain of American writers, that the combination with social sci-fi is simply not that common, or both.

Exemplary social science fiction writing can be found easily – for example when analysing the books that have been cited as antecedents and early examples of the genre are rarely *not* social sci-fi. If anything, the science fiction label is usually more arguable than the social commentary aspect. As a brief reminder works noted as such include Jonathan Swift’s *Gulliver’s Travels*, E. A.

¹⁰⁵ Christopher Leslie, "Social Science Fiction." *ProQuest*. City University of New York, 2007. Web. 8 Oct. 2016. <<http://search.proquest.com/docview/304888597?accountid=35514>>: iv.

¹⁰⁶ Leslie 16.

Abbott's *Flatland*, Edward Bulwer-Lytton's *The Coming Race*, Samuel Butler's *Erewhon* and of course H. G. Wells' work. As the genre progressed and science and technology did too, social sci-fi ceased to be mistakable for social satire and it has become a distinct and established genre. This stage of the development is represented by some of the most well-known novels, including George Orwell's *1984* and Aldous Huxley's *Brave New World*, which were later followed by for example John Wyndham's *The Chrysalids* or Iain M. Banks' *The Culture* novels. All these stories take place in the future (on future Earth or other, often fictional, planets) while each presents a different vision of it. Orwell discusses censorship, surveillance systems and the role of media and manipulation of the masses, themes relevant over sixty years later. Huxley questions natural reproduction, eugenics and hedonistic lifestyle with loosened morals creating a thin line between paradise and hell. Wyndham too discusses eugenics and morality and Banks' scope is the widest if them, as he explores (among many) the pros and cons of a post-scarcity society, human will and motivations and thus combines a dense political content with more philosophical and psychological issues.

6 Conclusion

As this paper demonstrated, the elements of science fiction have been present in literature since its beginnings, slowly coming in together until they finally evolved into a distinct genre with the arrival of the 20th century. A genre of such extent that it comprises numerous subgenres, equivalently distinct. The influence of the so-called father of science fiction, H. G. Wells, proved immense, traced in many diverse subgenres. Science fiction has then secured its place both in British literary canon and culture; words such as *Orwellian* became familiar parts of English vocabulary. It is fitting that this is the term most widely spread, because it is often used in relation to political and social issues. Specifically, Oxford English Dictionary defines the term as: “characteristic or suggestive of the writings of George Orwell, esp. of the totalitarian state depicted in his dystopian account of the future, *Nineteen Eighty-four* (1949)”¹⁰⁷ and it is frequently used in relation to video surveillance and control, the levels of which keep increasing and thus remains topical. The same can be said of many elements and themes of British science fiction, since the 20th century political issues reflected in the analysed works are largely still relevant (albeit to different extents than at the time of publishing).

It was discussed that around the 1960s, novels like Aldiss’ *Hothouse* (1962), John Christopher’s *Death of Grass* (1956) or Rachel Carson’s *Silent Spring* (1962), concerned with the future of the Earth, were published. Today, over fifty years later, the concern with ecology is only growing stronger, as the realities of global climate change and other related problems become more dramatic. Some subject matter on the other hand became taboo – one section of this paper observed that as popular as finding a solution for the inevitable overpopulation was in the 20th century, every

¹⁰⁷ "Orwellian, adj. and n." *OED Online*. Oxford University Press, March 2017. Web. 29 March 2017.

potential discussion of such measures was halted when our civilization witnessed the Holocaust. However, the world of 2100 may yet begin to desperately search for remedies to overpopulation, possibly even through eugenics, supported by some 20th century sci-fi writers and now so categorically denied. There is, therefore, no reason to expect even these radical notions would not be mirrored in real life societies one day, proving the position of science fiction as a serious and important literary genre.

The analysis also allowed for an observation of the traditional identity of British science fiction writers – such prototypical author would be a white educated male, British literary SF scene being much more homogenous than its American counterpart. Of course, education is relatively closely tied to science fiction writing, to extent varying depending on the subgenre (hard SF requires more expertise in the specific scientific field than soft SF). Further, this correlates with the underrepresentation of female authors and racially diverse writers observed in the section about Gwyneth Jones, especially since these groups were denied the same access to education the white men who represent the majority of the authors analysed in this paper were granted. That is the reason why the major subgenres of British science fiction were focused on issues external to the writers, rather than stemming from their personal experiences concerned with identity. While American SF literature gave voices to minorities and their identity through feminist/black science fiction, the prevailing notion of identity in British SF was human versus the other. However, both gender/race identity and the identity of the human kind are regularly explored in relation to politics.

Contemporary British science fiction continues to preserve its distinct nature, although many authors focus specialize in hard SF and space operas, following the tradition of Arthur C. Clarke rather than classic social science fiction. One such author is the already examined Ken MacLeod, still an active writer (his latest work is scheduled to be published in September 2017).

Yet in his case, there are still many largely political works to be found as well. *Night Sessions* (2008) employs the contemporary religious conflicts between Muslim countries and the Western world (using fundamentalist Christian narrative) and the subsequent ban of religion in the latter, inducing a discussion about the position of religion in modern society instead of hard SF facts. *Intrusion* (2012) is a dystopian novel featuring a moral dilemma posed by the introduction of a state-promoted pill that eradicates most genetic disorders *in utero* (while also removing genetic variance and thus impairing the human gene pool). Both novels are based on rather dark and serious questions, retaining the traditional British tone. Alastair Reynolds on the other hand stays truer to Clarke's tradition. *Revelation Space* (2000) is a classic space opera featuring aliens, cyborgs, sentient spaceships and antimatter bombs. In his vision of the future he focuses on the technological development (the way humans alter their bodies with technology). What adds to its British identity is the Gothic horror vibe, pointing back to Mary Shelley, whose Gothic tale *Frankenstein* has been identified as an exemplary proto-SF novel. In *Revelation Space* the Gothic elements are introduced in the form of a sentient spaceship, which is fittingly called Nostalgia for the Past and is described as a place to listen to ghosts, as having chambers, and some of its districts are said to be haunted.¹⁰⁸ Contrastingly, Adrian Tchaikovsky represents writing reminiscent of 20th century British SF concerned with evolution (both natural and manipulated). Using the biopunk premise of uplifted spiders, somewhat mirroring the evolution of humans, can invite a comparison with Wells' *The Island of Doctor Moreau* or later Wyndham's *The Day of the Triffids*. Finally, the person embodying contemporary British science fiction at its best is Chris Beckett. Apart from science fiction, he specializes in social work and has written a number of books on that topic. Naturally, his science fiction works are of substantially social nature – his novel *Dark Eden* (2012) depicts

¹⁰⁸ Alastair Reynolds, *Revelation Space* (Ace, 2002) E-book: Chapter 1.

the development of generations of inbred people on an isolated planet after the first man and woman were stranded there. Beckett explores the hierarchy within the society of incestuous relatives, the evolution of language as well as the alien fauna and flora. The use of Biblical parallels (Eden, Adam and Eve) can be compared to C. S. Lewis; Beckett, however, turns Eden into a place of punishment.

It is apparent that British science fiction continues to tackle serious political and social issues while enthusiastic and optimistic visions of the future are practically non-existent. It can be expected that the social dimension will not be disappearing from British SF literature; rather, even larger overlap between the social and hard, technical writing may appear. Questions of politics, gender roles, race, religion, the self or new technologies are still present in contemporary works of established British writers. The boundaries between forms and genres are still growing thinner if not disappearing altogether while the Western world faces many political conflicts raising anxiety across societies which can be anticipated and reflected in contemporary SF, guaranteeing the continuation of the British science fiction tradition.

7 Bibliography

- Abbott, Edwin A. *Flatland: A Romance of Many Dimensions*. New York: Barnes & Noble, 1963.
- Aldiss, Brian W. *Dracula Unbound*. London: Friday Project Limited, 2013.
- Aldiss, Brian W. *Frankenstein Unbound*. Lakewood: Centipede, 2016.
- Aldiss, Brian W. *Helliconia*. London: Gollancz, 2010.
- Aldiss, Brian W. *Hothouse*. London: Penguin, 2008.
- Aldiss, Brian W. *Moreau's Other Island*. London: Friday Project Limited, 2013.
- Aldiss, Brian W. *Non-stop*. London: Gollancz, 2001.
- Aldiss, Brian W., ed. *Space Opera*. London: Weidenfeld & Nicolson, 1974.
- Aldiss, Brian W., and David Wingrove. *Trillion Year Spree: The History of Science Fiction*. New York: Atheneum, 1986.
- Attebery, Brian. *Decoding Gender in Science Fiction*. New York: Routledge, 2002.
- Baccolini, Raffaella, and Tom Moylan. *Dark Horizons: Science Fiction and the Dystopian Imagination*. New York: Routledge, 2003.
- Ballard, J. G. *Concrete Island*. London: Fourth Estate, 2014.
- Ballard, J. G. *High-rise*. New York: Liveright, 2012.
- Ballard, J. G. *The Drowned World*. London: Fourth Estate, 2014.
- Banks, Iain M., "A Few Notes on the Culture," *Vavatch.co.uk*, 10 Aug 1994
<<http://www.vavatch.co.uk/books/banks/cultnote.htm>> 14 September 2016.
- Banks, Iain. *The Player of Games*. New York City: Orbit, 2008.
- Baxter, Stephen. *The Time Ships*. London: Harper Voyager, 2012.
- Beckett, Chris. *Dark Eden*. New York City: Random House, 2014.
- Bentley, Nick. *British Fiction of the 1990s*. New York City: Routledge, 2005.
- Brake, Mark. *Alien Life Imagined: Communicating the Science and Culture of Astrobiology*. Cambridge: Cambridge University Press, 2013.
- Brake, Mark, and Neil Hook. *Different Engines: How Science Drives Fiction and Fiction Drives Science*. London: Macmillan, 2008.
- Bulwer-Lytton, Edward. *The Coming Race*. Middletown, CT: Wesleyan University Press, 2005.
- Butler, Samuel. *Erewhon*. Harmondsworth: Penguin, 1970.
- Carson, Rachel. *Silent Spring*. Boston: Mariner (Houghton Mifflin), 2002.

- Christopher, John. *No Blade of Grass*. New York City: Avon, 1980.
- Clarke, Arthur C. *2001: A Space Odyssey*. New York: New American Library, 2000.
- Clarke, Arthur C. *Childhood's End*. New York: Del Rey, 2015.
- Clarke, Arthur C. *Rendezvous with Rama*. New York: Bantam, 1990.
- Clarke, Arthur C. *The City and the Stars*. London: Gollancz, 2004.
- Clarke, Arthur C., and Stephen Baxter. *Time's Eye*. New York: Ballantine, 2005.
- Cook, John R., and Peter Wright. *British Science Fiction Television: A Hitchhiker's Guide*. London: I.B. Tauris, 2006.
- Deery, June. "H. G. Wells's "A Modern Utopia" as a Work in Progress." *Extrapolation* 34.3 (1993): 216-30. *ProQuest*. Web. 21 Sept. 2016.
<<http://search.proquest.com/docview/1304235530?accountid=35514>>.
- Delany, Samuel R.. *Silent Interviews: On Language, Race, Sex, Science Fiction, and Some Comics--A Collection of Written Interviews*. Middletown: Wesleyan University Press, 1994.
- Fry, Stephen. *Making History*. New York City: Soho, 2014
- Hartwell, David G., and Kathryn Cramer. *The Space Opera Renaissance*. New York: Tor, 2006.
- Hassler, Donald M., and Clyde Wilcox. *Political Science Fiction*. Columbia, SC: University of South Carolina, 2011.
- Heinlein, Robert A., et al. *Of Worlds Beyond: The Science of Science Fiction Writing: A Symposium*. Ed. Lloyd Arthur Eshbach. Chicago, IL: Advent, 1964.
- Hooper, Walter. *Collected Letters of C.S. Lewis, Vol. II: Books, Broadcasts, and the War, 1931-1949*. San Francisco: Harper Collins, 2004.
- Huxley, Aldous. *Brave New World and Brave New World Revisited*. New York: Harper Perennial Modern Classics, 2005.
- Huxley, Aldous. *Island*. New York: Perennial, 2009.
- Huxley, Aldous. *Letters of Aldous Huxley*, ed. by Grover Smith. New York and Evanston: Harper & Row, 1969.
- Jakubowski, Maxim, and Malcolm Edwards. *The Complete Book of Science Fiction and Fantasy Lists*. London: Granada, 1983.
- Jones, Gwyneth A. *Deconstructing the Starships*. Liverpool: Liverpool UP, 1999.
- Jones, Gwyneth A. *White Queen*. New York: TOR, 1993.
- James, Edward, and Farah Mendlesohn. *The Cambridge Companion to Science Fiction*. Cambridge: Cambridge University Press, 2003.

- Lem, Stanislaw. "On Stapledon's "Star Maker" ("Le Cr  ateur" D'  toiles De Stapledon)." *Science Fiction Studies* 14.1 (1987): 1-8. JSTOR. Web. 3 Dec. 2016. <<http://www.jstor.org/stable/10.2307/4239789?ref=search-gateway:d4efdb9ffd67ed50684eb23336cf9c82>>.
- Leslie, Christopher. "Social Science Fiction." *ProQuest*. City University of New York, 2007. Web. 8 Oct. 2016. <<http://search.proquest.com/docview/304888597?accountid=35514>>.
- Lewis, C. S. *The Space Trilogy*. New York: Scribner, 2011.
- Lindsay, David. *A Voyage to Arcturus*. North Charleston, South Carolina: CreateSpace Independent Platform, 2012.
- Lucian. *True History*. Ed. David Lear. London: Firestone, 2013.
- Luckhurst, Roger. *Science Fiction*. Cambridge: Polity, 2005.
- MacLeod, Ken. *Cosmonaut Keep*. London: Orbit, 2001.
- MacLeod, Ken. *The Restoration Game*. London: Orbit, 2011. Print.
- Markley, Oliver. "Olaf Stapledon, Personal Reflections on Cosmic Inspiration from a Pioneering Visionary." *Journal of Futures Studies* 20.2 (2015): 123-32.
- Moorman, Charles. "Space Ship and Grail: The Myths of C. S. Lewis." *College English* 18.8 (1957): 401-05. JSTOR. Web. 20 Oct. 2016. <<http://www.jstor.org/stable/372109>>.
- Nahin, Paul J. *Time Machines: Time Travel in Physics, Metaphysics, and Science Fiction*. Woodbury, NY: AIP, 1999.
- Nygren, Ezekiel. *Hypothetical Spacecraft and Interstellar Travel*. Lulu.com, 2015.
- "Orwellian, adj. and n." *OED Online*. Oxford University Press, March 2017. Web. 29 March 2017
- Orwell, George. *Homage to Catalonia; Down and out in Paris and London*. Boston: Houghton Mifflin Harcourt, 2010.
- Parrinder, Patrick. *Science Fiction: its Criticism and Teaching*. London and New York: Methuen, 1980.
- Reynolds, Alastair. *Revelation Space*. Ace, 2002. E-book.
- Roberts, Adam. *Jack Glass*. Chicago: Trafalgar Square, 2013.
- Roberts, Adam. *New Model Army*. London: Gollancz, 2011.
- Roberts, Adam. *Stone*. London: Gollancz, 2009.
- Roberts, Adam. *Swiftly*. San Francisco: Night Shade Book, 2004.
- Roberts, Adam. *The History of Science Fiction*. Basingstoke: Palgrave Macmillan, 2006.
- Roberts, Adam. *The Thing Itself*. London: Gollancz, 2016.

- Roberts, Adam. *Yellow Blue Tibia*. London: Gollancz, 2010.
- Rose, Mark. *Alien Encounters: Anatomy of Science Fiction*. New York: ToExcel, 1999.
- Rucker, Rudy V. B. *The Fourth Dimension: Toward a Geometry of Higher Reality*. Mineola, NY: Dover Publications, 2014.
- Ruddick, Nicholas. *The Ultimate Island: On the nature of British Science fiction*. Westport, Connecticut: Greenwood Press, 1993.
- Russ, Joanna and ed. Susan Koppleman Cornillon. "Images of Women in Science Fiction." *Images of Women in Fiction: Feminist Perspectives*. Bowling Green: Bowling Green State University Press, 1972.
- Schmeink, Lars. "Biopunk 101." *SFRA Review* 309 (2014): 31-36.
- Seed, David, ed. *Anticipations: Essays On Early Science Fiction and Its Precursors (Utopianism and Communitarianism)*. Syracuse: Syracuse University Press, 1995.
- Seed, David. *A Companion to Science Fiction*. John Wiley & Sons, 2008.
- Scholes, Robert. *Structural Fabulation: An Essay on Fiction of the Future*. Notre Dame, IN: University of Notre Dame, 1975.
- Shelley, Mary Wollstonecraft. *Frankenstein, Or, The Modern Prometheus*. Ware: Wordsworth Classics, 1993.
- Shute, Nevil. *On the Beach*. New York: Vintage International, 2010.
- Smiley, Jane. *Thirteen Ways of Looking at the Novel*. London: Faber, 2006.
- Standish, David. *Hollow Earth: The Long and Curious History of Imagining Strange Lands, Fantastical Creatures, Advanced Civilizations, and Marvelous Machines below the Earth's Surface*. Cambridge, MA: Da Capo Press, 2007.
- Stapledon, Olaf. *Last And First Men*. 2010. *Project Gutenberg*. Web. 17 August 2016. <<http://gutenberg.net.au/ebooks06/0601101h.html>>.
- Stapledon, Olaf. *Star Maker*. Melbourne, Vic.: Wildwood, 2014.
- Suin, Darko. *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*. New Haven: Yale University Press, 1979.
- Suin, Darko. "Victorian Science Fiction, 1871-85: The Rise of the Alternative History Sub-Genre (La Science-fiction Victorienne, 1871-1885: L'émergence Du Sous-genre De L'uchronie)." *Science Fiction Studies* 10.2, Science Fiction in the Nineteenth Century (1983): 148-69. JSTOR <<http://www.jstor.org/stable/10.2307/4239546?ref=search-gateway:46fad64c378cc7f3767445de2a7dd739>> Web. 10 Nov. 2015.
- Telotte, J. P. *Replications: A Robotic History of the Science Fiction Film*. Urbana: University of Illinois, 1995.

- Wagner, Geoffrey. "A Forgotten Satire: Bulwer-Lytton's *The Coming Race*." *Nineteenth-Century Fiction* 19.4 (1965): 379-85. JSTOR. Web. 4 January. 2016.
<<http://www.jstor.org/stable/10.2307/2932877?ref=search-gateway:d1f8cb187bf100af440d0648afed1ac0>>.
- Wells, Herbert G. *A Modern Utopia*. London: Penguin, 2005.
- Wells, Herbert G. et al. *Amazing Stories*. 1.1. Ed. Hugo Gernsback. NYC: Experimenter Publishing Co, 1926. Internet Archive
<<https://archive.org/details/AmazingStoriesVolume01Number01>>. Web. 14 Oct. 2015.
- Wells, H. G. *Five Great Science-fiction Novels*. Mineola: Dover Publications, 2004.
- Wells, H. G. *The Shape of Things to Come*. London: Penguin, 2005.
- Wilkins, John. *A Discourse concerning a New Planet: Tending to Prove That 'tis Probable Our Earth Is One of the Planets*. London: John Maynard, 1640.
- Wilkins, John. *The Discovery of a World in the Moone*. Hildesheim: Georg Olms, 1981.
- Wyndham, John. *Chocky*. Harmondsworth: Penguin, 1973.
- Wyndham, John. *Planet Plane*. London: Newnes, 1935
- Wyndham, John. *The Chrysalids*. New York: New York Review, 2008.
- Wyndham, John. *The Day of the Triffids*. New-York: Modern Library, 2008.
- Wyndham, John. *The Kraken Wakes*. London: Penguin, 2008.
- Wyndham, John. *The Midwich Cuckoos*. London: Gollancz, 2016.
- Yuasa, Kyoko. "C. S. Lewis and Christian Postmodernism: Word, Image, and Beyond." Thesis. Hokkaido University, 2014. Hokkaido University Collection of Scholarly and Academic Papers. Web. 3 Oct. 2016.
<http://eprints.lib.hokudai.ac.jp/dspace/bitstream/2115/57185/1/Kyoko_Yuasa.pdf>.
- Zamyatin, Yevgeny. *We*. Trans. Natasha Randall. New York: Modern Library, 2006.